This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

600074144Q

LOCKE'S ESSAY

ON THE

HUMAN UNDERSTANDING:

ABRIDGED

FOR COLLEGIATE AND GENERAL USE.

WITH

A PRELIMINARY OUTLINE OF THE PLAN OF THE ORIGINAL WORK.

BY

JOHN MURRAY, A.M., LL.D.

SOMETIME SCHOLAR OF TRINITY COLLEGE, DUBLIN; AUTHOR OF "ORIGINAL VIEWS OF PASSAGES IN THE LIFE AND WRITINGS OF HORACE;" ETC. ETC.

Τοιαῦτα κοινὰ τρόπον τινὰ ἀπάντων ἐστὶ γνωρίζειν, καὶ οὐδεμιᾶς ἐπιστήμης ἀφωρισμένης.—Aristotle.

BIBLIOTHECA BODLEIANA

DUBLIN:
HODGES AND SMITH, GRAFTON-STREET,
BOOKSELLERS TO THE UNIVERSITY.
MDCCCLII.

265. c. 44.

DUBLIN:
Printed at the University Press,
BY M. H. GILL.

PREFACE.

The purpose of the present undertaking is to edit the pure text of "LOCKE's Essay" from a comparison of the best previous editions, in a compass more proportionate to the solid contents of the Work, in a form more easy of access, and on a principle less liable to some particular objections, than has been heretofore attempted; in the hope that an acquaintance, at once real and ready, with that standard specimen of ancient English philosophy may thereby be secured and extended.

The process of abridgment I have endeavoured to carry out by reducing the repetitions, diffusiveness, and irrelevant matter, by which many parts of the "Essay" are incumbered. I have felt, however, that mere convenience should not be so far consulted by a compiler of LOCKE as to induce him to mar the genuine style of the unique original: repetitions, too, are often impressive; especially when they recall at intervals the main question in a long argument: and matter strictly irrelevant (as, for instance, practical reflections on truths established, or supposed to be so) may be very valuable.

DUBLIN:
Printed at the University Press,
BY M. H. GILL.

PREFACE.

The purpose of the present undertaking is to edit the pure text of "Locke's Essay" from a comparison of the best previous editions, in a compass more proportionate to the solid contents of the Work, in a form more easy of access, and on a principle less liable to some particular objections than has been heretofore attempted: in the hope that an acquaintance, at once real and ready, with this standard specimen of ancient English philosophy may thereby be secured and extended.

The process of abridgment I have endeavoured to carry out by reducing the repetitions, diffusiveness, and irrelevant matter with which many parts of the "Essay" are encumbered. I have felt, however, that mere convenience [illegible] not be so far consulted [illegible] as to induce him to [illegible] the [illegible] unique original: repetition [illegible] impressive; especially [illegible] towards the main question in [illegible] strictly irrelevant ([illegible] reflections on truths [illegible]) may be very

My effort, therefore, has not been so much to reduce the given quantity to its lowest terms, as to construct an epitome such as should contain the least possible amount of matter irrelevant to the business of the Examination-hall, and to the advantage of the general reader. Indeed the amount of letter-press contained in this volume proves beforehand that the original Work cannot have been unduly curtailed in quantity: upon the quality of the selection made it will be for the careful collator to pronounce.

It is here to be noted that if a good Compendium of Locke's celebrated Work could be produced, such a performance would have for its auspice the prospective sanction of the great philosopher himself —that it would, in fact, be but the realizing of *his own* suggestion: for, in his "Epistle to the Reader" (which, I regret, would, as a whole, be out of place in this volume), he observes of his "Essay," with his accustomed candour,—"I will not deny but possibly it might be reduced to a narrower compass than it is; and that some parts of it might be contracted; the way it has been writ in, by catches, and many long intervals of interruption, being apt to cause some repetitions. But, to confess the truth, I am now too lazy or too busy to make it shorter."

The second of the proposed ends—that of presenting the text 'in a form more easy of access'—I have chiefly endeavoured to accomplish by carefully adapting the punctuation to the sense, which, it cannot be denied, has been very extensively obscured by the neglect of that precaution in the editions commonly in use. I have also sought to disembarrass the Author's meaning in prolix or complicated passages, and generally to assist the connexion, by including within parenthesis-marks, and indicating by other definitive signs, those clauses and terms which seemed to require such specification; and have employed italic type and capital letters freely throughout, in order to distinguish the more emphatic phrases and terms employed.

I am not unaware that the old-fashioned appearance thereby imparted to the book may be faulted. But the plainest forms are needed by most students: and those will ever be found the most serviceable which best enable them to dispense with the puerile aid of "Questions for Exercise," which, (except in the sense of their application in the mathematical sciences, and kindred calculations,—namely, as implying Examples, or Deducibles), however carefully they may be selected, rarely serve the student in the ratio of their known disadvantages. By the present exactness of typographical arrangement, however, I trust the meaning of every sentence will be caught at a glance, and the resulting question at once suggested to the mind. But it is not to be supposed that in endeavouring to give full and precise expression to the views of LOCKE, as he has himself declared them, I intend, in any one instance, by an emphatic mark, to convey impliedly any assent or comment of my own, as an editor, in the case.

In connexion with the mechanical department I may observe, that I have not acknowledged, by any mark or remark, the continual *omissions* of passages in the original (for this would be endless); nor have I thought occasional instances of transposition of passages or words to require special notification. But I have not ventured to *introduce* any clause, word, part of a word, or even a single letter, into the pure text, that is not marked within brackets thus [ ], (save that the general use of 'has' for 'hath' is not thus specified); and I trust that a comparison with the original will show that transposition, in the few instances where it occurs, has assisted consecutiveness of argument, or, at least, concentration of meaning.

With grammatical forms and peculiar terms employed by the Author, I have not presumed to interfere, except where I believed that the doing so could not well be avoided. But where a word or construction, as compared with ordinary rule at the present day, would tend to nullify or obscure the original meaning of the context; or where a term, simple or compound, has been employed which does not now exist in the usage of the English language, and which would, at the same time, be inconvenient in any way; or, again, where a form of speech occurs that could not, at any period of the language, have been commonly grammatical—in these instances I have modified the Author's phraseology; for we must not ignore this fact—that in his extreme eagerness to discountenance the technicalities of the Schoolmen, he diverged far into the other extreme—that of colloquialism. In all other cases I have, not less from duty to the reader than from choice, left the wording of the original as I found it.

To illustrate some of the particulars that seemed to require amendment in the original:—The word "besides" occurs in LOCKE in connexions where *we* would say [" except"]; and this exactly inverts his meaning in those places; the expression " postures," as applied to reasoning, now sounds absurdly, although so nearly allied to the more familiar term [" positions"]; and such expressions as " *in*translateable," " *un*variable," &c., could be of no value to the text, and might by some one be attributed to my own inaccuracy or inadvertence. To what *purpose* should an improper singular or plural form, or a misused copulative or disjunctive conjunction, be now retained, when a slight emendation may rectify the phrase? The following passage, however, supplies a more serious instance in point. In his Chapter on the 'Association of Ideas,' speaking of the "unreasonableness" that is to be found in most men, he says—" There is scarce a man so free from it, but that if he should always, on all occasions, argue or do, as in some cases he constantly does, would not be thought fitter for bedlam than civil conversation." This is the reading of all the editions that I have seen, including the elegant modern one by Mr. St. John. But it is plain that if the apodosis of the sentence, grammatically speaking, has any sense, it is the reverse of Locke's meaning in the context. The treatment of this passage in page 204 may be considered as a fair specimen of the greatest liberty which this Abridgment anywhere takes with the text.

As to the third of the particulars contemplated by this publication, namely, that of dissociating the doctrines of Locke from circumstances 'liable to some particular objections,' suffice it to say, that I have expunged all allusions and expressions that could be construed as offensive to the particular religious persuasion of any class of readers. Not but that I would have retained them all, if they appeared essential to the arguments of the Author whom I profess to place truthfully before the reader. But, however the science of metaphysics may, or may not, be considered as indebted for its present development to any consequences arising out of religious revolution, it is quite certain that at the present day it can, happily, be cultivated, like all other polite arts and sciences, without reference to controversial topics. In Locke's Work I do not believe that in any instance the argument in hand is assisted by those expressions and allusions. Besides, if they be taken apart from due allowance for the circumstances of the period when they were written, they tend to depreciate the habitually calm bearing and impartial character of the great metaphysician.

The rank which LOCKE (who may be justly styled the Father of English Metaphysics) is entitled to claim among the originators of scientific systems, or the relative value of his views, as compared with those of other illustrious men, can be but sparingly discussed here. Even a Preface, however, may testify that in point of original genius, and all the attributes of a master-mind, he ranks second to few. It certainly does not follow, that all those who in various ages have memorably extended the bounds of scientific research as they successively found them, would therefore of necessity prove competent to operate with proportionate effect upon every increased or diminished amount of improvable materials. The degree of inventive genius possessed by Watt *might* not so signally enlarge the present domain of machine-power as to secure to him an undying reputation; and Copernicus may have been fortunate in his era. In the less abstract department, too, of discovering (what may be termed) palpable facts, a Columbus might to-day be as little successful, to any beneficial purpose, in exploring unknown ocean-tracts as others whose patriotic self-devotion we know not whether more to honour or lament.* But an instinctive reverence—a mystic *prestige*—a self-sustained greatness—attaches itself to such originators as Aristotle, Newton, Bacon, Locke, &c., &c., independently of the present value of their particular doctrines or successes; impressing the conviction that, at any age, and under almost any circumstances, fame would be their birth-right.

It must, indeed, be admitted that Locke's great performance would even less than originally receive his own unqualified approval, were he now to review it by aid of lights that have more recently arisen. It is deficient in extent; and is admittedly erroneous, and even self-inconsistent, in many points of detail. But it contains the germs of most of the metaphysical truths that have since received the most general assent, and of many that have never yet been developed. More dazzling theories than his have certainly fascinated the eyes of men; more laboured researches have eluded them: but a more truth-loving inquirer after the knowledge both of God and of man than Locke, or a more trustworthy guide for youth toward, and (to a great extent) along, *the proper road* by which such pursuits should be followed out, never yet professed either to search or to teach. In this view, his Work is as good a medium of introduction to metaphysical study—as safe a practical text-book—as the youth of any community can enjoy. It would, at the same time, be a great misconception of its proper functions, were any student to imagine that his metaphysical text-book, whatever it may be, can have *the same kind* of right to influence his assent as 'Euclid's Elements' or 'Paley's Evidences.' He should always bear in mind that these, and such like, are conversant about demonstrative matter; while 'Locke's Essay' (suppose) and all of its class are optional systems of opinion.

---

* Few readers shall need to be told that the allusion here is to the last expedition of the gallant Franklin.

And here it may be as well to premise, with a view to the avoidance of any subsequent confusion, that the exceedingly various modifications of metaphysical tenets that have been advanced in ancient and modern times are all reducible, in whole or part, to one or other of two general and opposite systems of philosophy,—namely, the SENSATIONAL (or EMPIRICAL, 'Eμπειρική), which regards the SENSES as the sources of all our Knowledge, and recognises *Experience* as our sole informant; and the IDEAL (or TRANSCENDENTAL, as it has been somewhat enthusiastically termed by Kant), which attributes to *Pure Reason* "principles so vast and so fruitful" (to use the words of Descartes), "that many more consequences follow from them than we see contained in this visible world, and even many more than our mind can ever take a full survey of." Thus while, on the one hand, Scottish philosophy, for the most part, proceeds methodically to analyze mind by the strictest analogy of experimental physics, the German school, on the other, professes in effect to solve *a priori* the most occult questions regarding the universe by a lofty estimate of purely mental developments. This distinction forces itself upon our attention, more or less, in all metaphysical treatises, whether we investigate, with Leibnitz, Hartley, Brown, and others, the supposed causes and modes of mutual operation in mental and material agencies; or whether, with Locke, we shall decline "the physical consideration of the mind," and the inquiry "whether our ideas do, in their formation, any or all of them, depend on matter or not." His system, however, while it professedly, and very strongly, upholds the experimental in the first instance, and the practical in every proper sense, will be found to admit an ample combination of hypothesis with observation; his chief condition being, that our speculations preserve a due regard to their legitimate scope—that they tend πρὸς ζωὴν καὶ εὐσέβειαν.*

To conclude—I feel that the penetrating research—the unpretending piety—the independent simplicity—the racy quaintness of "John Locke,

---

* See [illegible]cke's Introd. page 4; and Nov. Test. Græc., II. Pet. i. 3.

GENT.," can be best appreciated by the studious reader of his original Work. But that bold monument of English genius is for the library: this miniature copy of it is chiefly intended for the class-room. In preparing it, I confess that notwithstanding the pleasurable anticipation that retrenchment would extend a sound acquaintance with his great Work,—I yet felt somehow as a mariner might be supposed to feel on being obliged by stress of weather to cast over-board articles which he would fain be allowed to preserve, as page after page inevitably received the mark of exclusion. From "the two cassiowaries in St. James's Park" (see B. II., ch. XXV. of the original) I parted as from old friends; and several illustrations of "a pleasant oddness" (to use his own words), I would have left undisturbed; but wilful inconsistency in reducing the quantity of matter could not be expected to escape just censure.

Finally, as those portions of the "Essay" which are excluded* from the Course prescribed to the students of Trinity College, Dublin, may be conveniently dispensed with by students and readers in general, I have adopted as the basis of my plan the selection which our Board have, for a long series of years, recommended by their sanction: and I have now only to hope, that nothing in any degree requisite to an adequate statement of the views of LOCKE is wanting in this book, and that little of what can reasonably be deemed superfluous is retained.

---

* To prevent confusion, a scale of the excluded portions is here annexed:

BOOK I.—CHAPS. II. III. IV.

BOOK II.—CHAP. I., SECS. 10–20; CHAP. XIII., SECS. 10—to end; CHAP. XV.; CHAP. XXI., SECS. 11–71; CHAPS. XXX. AND XXXII.

BOOK III.—CHAP. VI.

JOHN MURRAY.

TRINITY COLLEGE, DUBLIN,
October, 1852.

PRELIMINARY OUTLINE

OF

THE PLAN OF LOCKE'S ESSAY.

THE phenomena of the Human Understanding, like those of external nature, have been regarded by philosophers in a twofold view. Either they have been treated of as effects, independently of physical causation; and, in this view, the results of their operations have been observed and recorded as facts; *general laws*, as they are termed, or systems of conditions under which they are observed constantly or generally to happen, have been deduced; and rules have been framed for the regulation of practice in any way, accordingly: or, secondly, scientific inquiry has interested itself in endeavouring to discover the secret agencies of nature—the prime *Causes* which the Creator has been supposed to have designed as springs of the wondrous mechanism of the mental as of the material world.

The latter of the above departments, philosophers are now agreed, is not a profitable subject of research. For, however scientific genius and experience are making hourly advances in developing relations of cause and effect in aid of practical progress and the improvement of life, yet no cause can be traced out which is not itself an effect of something else, and multitudes of the oldest and most obvious facts, both of mind and matter, remain still unaccounted for, even to this limited extent. But, in the former case, inductive research has acquired proud rewards. There is scarcely any sphere of knowledge in which the inquirer after truth will not find inexhaustible stores already provided for him by the industry of his fellow-men; and wherever ignorance conduces to human misconduct, either an available stock of experience and knowledge has been wilfully neglected, or some independent cause has barred the opportunities of approach. To have opened an original and magnificent field of observation in this department, to have conducted his disciples a very considerable way in it, and, during his whole investigation, to have set the example of abstaining from all speculations unsuited to the powers of man, is JOHN LOCKE's title to celebrity. "To inquire into the original, certainty, and extent of human Knowledge, together with the grounds and degrees of Belief, opinion, and assent," is his own brief statement of his vast undertaking. But although the object* of his inquiry is the Human Mind, yet it is not

---

* It may be useful here to transcribe a note of Dr. Lardner's:

"The object and the end in popular works are frequently confounded. The object is the subject-matter of a treatise; the end, the purpose to be attained by treating of the object. Thus the objects of this Essay are the operations of the mind. The end is to teach proper methods of searching after truth."

'the mind' in the largest sense of that term. "The physical consideration of the mind" he expressly declines: and it is one of his chief merits that he rendered the inquiry into the nature of mind entirely independent of all theories whatever respecting the agency of matter.

"LOCKE," to use the words of his ablest modern opponent, Cousin, "it is true, is not the first who started the question concerning the 'Origin of Ideas;' but it is LOCKE who first made it the Grand Problem of Philosophy;" and in full keeping with this "grand problem" is the grand simplicity of process which he proposes for its solution. The phenomena of mind are by him named in their widest sense—'*Ideas;*' a term borrowed from the Platonic philosophy, and signifying primarily the eternal '*patterns*,' '*species*,' or '*forms*,' supposed by Plato to exist in nature, and according to which he held that the Deity fashioned all things. With LOCKE, however, the term will be found to have a less imaginary meaning: and the most general form of the process by which he seeks to advance his inquiry respecting 'Ideas' is fairly enough stated by Dr. Lardner, in his "Lectures upon Locke's Essay:"

"The main doctrine which he establishes is, that all our primitive ideas originate in sensation. After the mind becomes furnished with ideas by the senses, it begins to exercise its capacities of compounding, comparing, abstracting, &c. The mind contemplating these, its own operations, acquires ideas of them, which ideas form a new class wholly distinct from the former, and which he calls ideas of reflection. His principal argument to establish the doctrine that sensation and reflection are the original of all our ideas, is an induction completed *a fortiori.* As it would be impossible to enumerate *all* our ideas, and prove each separately to come from one or other of these sources, he shows, in a general way, that very comprehensive classes undoubtedly arise from them; the most obvious are the ideas peculiar to each of the five senses, the ideas of the different operations of the mind, &c. This induction, which must, from its very nature, be imperfect, he confirms, by showing that those ideas which seem to be most abstruse in their origin, and most unlikely to proceed from the sources he assigns, do, nevertheless, actually proceed from them, and from no other. The ideas he selects for this purpose, are space, time, and infinity."

Upon the contents of the First Book Dr. Lardner further remarks:

"Those who denied sensation and reflection to be the only sources alleged many of our ideas to be *innate;* that is, to be originally impressed upon the mind in the first moment of its creation, and to constitute an essential and inseparable part of the mind itself. They not only alleged that there were certain ideas thus impressed, but also maintained that there were actually some truths, the perception of which was simultaneous with the creation of the living principle. To state this more plainly; they maintained that at the moment that life is communicated to that portion of organized and hitherto inert matter designed to receive it, there are at the same time conveyed to it clear and distinct perceptions of certain ideas, and even of the truth of certain abstract propositions, and hence these ideas and propositions have been called *innate*. Locke devotes his First Book to the refutation of this doctrine; and if this be the only source assigned for ideas, his own doctrine may be considered to be thus established, by reasoning from the remotion of one part to the position of the others. No idea can be considered innate, the existence of which may be accounted for by any of the ordinary ways whereby we get other ideas. For it is unphilosophical to ascribe more causes than are sufficient to solve the phenomenon. It is contrary to the economy of nature to do by two different causes that which might have been done by one and the same."

He then proceeds to say:

"In the course of his investigations respecting the original of our ideas, he enters into several inquiries which do not strictly come under that head. Thus he examines other qualities of ideas, as their clearness, distinctness, reality, adequacy, &c. These considerations conclude his Second Book.

"According to the method laid down in the introduction, he should next have proceeded to the consideration of knowledge and its attributes. In his progress, however, finding a more intimate connexion between language and ideas than he at first had expected, he conceived it necessary to devote a part of his work to the consideration of language, and its influence upon our ideas and knowledge. This subject he has fully treated in his Third Book. The Fourth Book is altogether devoted to investigations respecting knowledge and probability, and their attributes."

Upon the preceding extracts it should be observed, that Dr. Lardner is not strictly correct in calling LOCKE's Induction an "argument." So far as it is inferential respecting the origin of our ideas, it is, of course, an "argument;" and its proper force as such we shall presently examine. But so far as it is a collection of facts and instances as a ground of inference (and in this view Lardner seems chiefly to regard it), it is not an "argument," but a form of inquiry with a view to obtain the premises of such. These are wholly distinct matters. The former belongs to logic, and is to be adjusted merely by logical rule. The latter, which is the primary sense of the word Induction (i. e. a '*bringing in*' of particulars), is wholly an exercise of practical experience based on competent observation, and no further depends on logic than in so far as the observer may argue right or wrong in the act of 'bringing in,' and appropriating as relevant, any particular instance. In this department practical skill in any given art or science is the best guarantee for a correct Induction; and no logical rules can compensate the want of it. In the former (i. e. in 'inducing' the conclusion), a double peculiarity arises, of the exact nature of which the reader of LOCKE's Essay should be apprized beforehand: and therefore an attempt is here made to describe and adjust any apparent confusion that may disturb the student.

It will be granted that the 'collection' of instances constituting what we may call the primary Induction must, of course, be either perfect or imperfect: if it be perfect (which rarely happens), then the secondary Induction can evidently bring no increase to knowledge—it is, as n terms it, a "*res puerilis;*"—but if it be not perfect, either the [illegible] conclusion must be particular, and then the same objection arises as before—or it must be directly assumed that the given individual instances adequately *represent* the whole Class to which they are admitted to belong: and, so far as strict logic is concerned, this is an argument '*a particulari ad universale.*'

How, then, is this difficulty to be met? Must the conclusion derived from Induction be always useless or insecure? By no means. 1st. Our instinctive conviction (which is more immediately powerful than any formal pooof) of the permanence of a Law of Nature may be so great, that, having fully ascertained, suppose, one piece of gold to be malleable, we unhesitatingly and securely infer that—'all gold is malleable.' 2ndly. Our reliance on the skill of particular individuals, suppose chemists for instance, may be so well-founded, that we doubt not the universality of the grounds on which they base their classifications. 3rdly. An imperfect Induction may be so fenced by collateral Arguments as to be rendered perfectly impregnable. All these three, more or less, sustain the Induction of Locke, in both its departments. But to the last of them alone is it necessary here to direct attention.

Independently of the vast help which the 'Argument *a fortiori*' must afford in such a case, he employs, with much effect, the 'Argument from Analogy.' This Argument may, perhaps, be concisely called—that in which from *likeness* we infer *likelihood.* This—the presumed likeness of things unknown to others that are known—is our sole reason for supposing that the sun will rise to-morrow, or that our bodies will in five minutes hence be 'living' and [illegible] much we rely in all our concerns on the 'probability' resulting from Analogy needs no proof: suffice it to say, in the words of Bishop Butler—"to Us probability is the very guide of life." This Argument LOCKE employs variously: but we may give his especial application of it in the words of Dr. Lardner:

"He draws an analogical argument from tracing back the state of the mind from the adult to the child, from the child to the infant, and so back to the moment of its birth, which is the first moment in which we can observe it. Through all these stages we find the stock of ideas diminishing rapidly, and find scarcely any in the newborn infant; whereas, had we proceeded in the other direction, we should have found the variety of ideas increasing in proportion to the variety of sensible objects which presented themselves, and to the attention with which they are contemplated. Arguing, therefore, by analogy, we may infer, that were we able to carry our observation back from infancy to the moment of creation, we should find no ideas *then* actually existing, though probably they would immediately begin to exist."

Under this head we may class, 3rdly, his 'Argument from Etymology,' which properly rests on *likeness*. This is thus described by Lardner:

"He deduces an argument from etymology in support of this doctrine. He observes, that most of the words in use, even those expressing ideas of reflection, are derived from names expressive of sensible ideas. Such are, imagine, apprehend, adhere, conceive, instil, disgust, &c., spirit, angel, &c. And he conjectures, that if we were able to trace all names back to their first origin, we should find them all ultimately implying sensible ideas."

He employs, 4thly, the 'Argumentum ad hominem'—that is, the confutation of an adversary on his own ground, i. e. by the consequences of his own principles if admitted. This Argument, on which the practice of cross-examination is chiefly based, is certainly of no intrinsic value; for an adversary may prove any number of opponents to be wrong or unable to convict him, without his being able to show that he himself is right or innocent. In LOCKE's hands, however, it is a powerful instrument. But as he chiefly employs it in parts of the Cartesian controversy which enter little into this volume, we need not dwell upon it.

5thly. The 'Argumentum ad ignorantiam'—i. e. the requiring an opponent to admit your principle or assign a better—though often an unmeaning and contemptible fallacy, is, in LOCKE's use of it, an honest and powerful ally to truth. "If," he says in effect to the Cartesian, "there really are '*innate ideas*,' as your system asserts, why not *name* some of them? *I* have, by a copious Induction, named multitudes of classes that are *not* innate—in fact, every one that experience can suggest to me; is it, then, unreasonable to ask you to name some—even *one*—that *is?*" There is, perhaps, no instance on record in which this Argument has been so remarkably applied.

On the whole, it is hard to conceive any Induction better guarded than that of JOHN LOCKE. And the reader, it is hoped, is now fairly in a position to enter on the inquiry—how far he shall individually conclude that the sum of all these Arguments sustains that which alone is the charter of all right reasoning—the 'Argumentum ad Judicium.'

CONTENTS OF LOCKE'S ESSAY.

BOOK I.

OF INNATE NOTIONS.

CHAP. PAGE.
I.—Introduction, ... 1
II.—No Innate Principles in the Mind, ... [excluded.*]
III.—No Innate Practical Principles, ... [excluded.*]
IV.—Other Considerations concerning Innate Principles, both Speculative and Practical, . . [excluded.*]

BOOK II.

OF IDEAS.

I.—Of Ideas in general, and their Original, [partly excluded,] 7
II.—Of Simple Ideas, ... 13
III.—Of Ideas of one Sense, ... 16
IV.—Of Solidity, ... 18
V.—Of Simple Ideas of Divers Senses, ... 23
VI.—Of Simple Ideas of Reflection, ... 24
VII.—Of Simple Ideas of both Sensation and Reflection, . . . 25
VIII.—Some farther Considerations concerning our Simple Ideas, ... 30

---

* With reference to all the "excluded" parts, see page xiii.—EDITOR.

CHAP. PAGE.
IX.—Of Perception, ... 44
X.—Of Retention, ... 52
XI.—Of Discerning, and other Operations of the Mind, . 60
XII.—Of Complex Ideas, ... 69
XIII.—Of Simple Modes; and, First, of the Simple Modes of Space, ... [most part excluded,] 73
XIV.—Of Duration, and its Simple Modes, ... 80
XV.—Of Duration and Expansion considered together, [excluded.]
XVI.—Of Number, ... 98
XVII.—Of Infinity, ... 103
XVIII.—Of other Simple Modes, ... 116
XIX.—Of the Modes of Thinking, ... 119
XX.—Of Modes of Pleasure and Pain, ... 121
XXI.—Of Power, ... [most part excluded,] 125
XXII.—Of Mixed Modes, ... 137
XXIII.—Of our Complex Ideas of Substances, ... 145
XXIV.—Of Collective Ideas of Substances, ... 156
XXV.—Of Relation, ... 157
XXVI.—Of Cause and Effect, and other Relations, ... 163
XXVII.—Of Identity and Diversity, ... 167
XXVIII.—Of other Relations,. 179
XXIX.—Of Clear and Obscure, Distinct and Confused Ideas, 190
XXX.—Of Real and Fantastical Ideas, ... [excluded.]
XXXI.—Of Adequate and Inadequate Ideas, ... 199
XXXII.—Of True and False Ideas, ... [excluded.]
XXXIII.—Of the Association of Ideas, ... 204

BOOK III.

OF WORDS.

I.—Of Words or Language in general, ... 210
II.—Of the Signification of Words, ... 213
III.—Of General Terms, ... 219
IV.—Of the Names of Simple Ideas, ... 233

CHAP. PAGE.
V.—Of the Names of Mixed Modes and Relations 241
VI.—Of the Names of Substances, ... [excluded.]
VII.—Of Particles, ... 249
VIII.—Of Abstract and Concrete Terms, ... 253
IX.—Of the Imperfection of Words, ... 256
X.—Of the Abuse of Words, ... 268
XI.—Of the Remedies of the foregoing Imperfection and Abuses, ... 283

BOOK IV.

OF KNOWLEDGE AND OPINION.

I.—Of Knowledge in general, ... 299
II.—Of the Degrees of our Knowledge, ... 306
III.—Of the Extent of Human Knowledge,. 316
IV.—Of the Reality of Human Knowledge, ... 332
V.—Of Truth in general, ... 341
VI.—Of Universal Propositions, their Truth and Certainty, 347
VII.—Of Maxims,. 352
VIII.—Of Trifling Propositions,. 368
IX.—Of our Knowledge of Existence, ... 374
X.—Of our Knowledge of the Existence of a God, . . . 375
XI.—Of our Knowledge of the Existence of other Things,. 384
XII.—Of the Improvement of our Knowledge,. 395
XIII.—Some farther Considerations concerning our Knowledge, ... 406
XIV.—Of Judgment, ... 409
XV.—Of Probability, ... 412
XVI.—Of the Degrees of Assent, ... 417
XVII.—Of Reason, ... 425
XVIII.—Of Faith and Reason, and their distinct Provinces, . 450
XIX.—Of Enthusiasm, ... 458
XX.—Of wrong Assent, or Error, ... 468
XXI.—Of the Division of the Sciences,. 479

EXTRACT*

FROM

LOCKE'S EPISTLE TO THE READER.

* * * * * * * * * *

THE booksellers, preparing for the fourth edition of my Essay, gave me notice of it, that I might, if I had leisure, make any additions or alterations I should think fit. Whereupon I thought it convenient to advertise the reader, that besides several corrections I had made here and there, there was one alteration which it was necessary to mention, because it ran through the whole book, and is of consequence to be rightly understood. What I thereupon said, was this:—

"Clear and distinct ideas" are terms which, though familiar and frequent in men's mouths, I have reason to think every one who uses does not perfectly understand. And possibly it is but here and there one who gives himself the trouble to consider them so far as to know what he himself or others precisely mean by them. I have therefore, in most places, chose to put "determinate" or "determined," instead of "clear" and "distinct," as more likely to direct men's thoughts to my meaning in this matter. By those denominations, I mean some object in the mind, and consequently determined, i. e. such as it is there seen and perceived to be. This, I think, may fitly be called a "determinate" or "determined" idea, when such as it is at any time objectively in the mind, and so determined there, it is annexed, and without variation determined, to a name or articulate sound which is to be steadily the sign of that very same object of the mind, or determinate idea.

---

* I have taken this extract from the sixth edition,—the last, I believe, that the Author himself revised.—ED.

To explain this a little more particularly: By "determinate" when applied to a simple idea, I mean that simple appearance which the mind has in its view, or perceives in itself, when that idea is said to be in it. By "determinate" when applied to a complex idea, I mean such an one as consists of a determinate number of certain simple or less complex ideas, joined in such a proportion and situation as the mind has before its view, and sees in itself, when that idea is present in it, or should be present in it when a man gives a name to it. I say "should be;" because it is not every one, nor perhaps any one, who is so careful of his language as to use no word till he views in his mind the precise determined idea which he resolves to make it the sign of. The want of this is the cause of no small obscurity and confusion in men's thoughts and discourses.

I know there are not words enough in any language to answer all the variety of ideas that enter into men's discourses and reasonings. But this hinders not but that when any one uses any term, he may have in his mind a determined idea which he makes it the sign of, and to which he should keep it steadily annexed during that present discourse. Where he does not or cannot do this, he in vain pretends to clear or distinct ideas: it is plain his are not so; and therefore there can be expected nothing but obscurity and confusion, where such terms are made use of which have not such a precise determination.

Upon this ground I have thought "determined ideas" a way of speaking less liable to mistake than "clear and distinct:" and where men have got such determined ideas of all that they reason, inquire, or argue about, they will find a great part of their doubts and disputes at an end. The greatest part of the questions and controversies that perplex mankind, depending on the doubtful and uncertain use of words, or (which is the same) indetermined ideas, which they are made to stand for; I have made choice of these terms to signify, 1. Some immediate object of the mind, which it perceives and has before it, distinct from the sound it uses as a sign of it. 2. That this idea, thus determined, i. e. which the mind has in itself, and knows and sees there, be determined without any change to that name, and that name determined to that precise idea. If men had such determined ideas in their inquiries and discourses, they would both discern how far their own inquiries and discourses went, and avoid the greatest part of the disputes and wranglings they have with others.

* * * * * * * * * *

OF
HUMAN UNDERSTANDING.

BOOK I.

CHAPTER I.

INTRODUCTION.

An inquiry into the Understanding pleasant and useful.—Since it is the Understanding that sets man above the rest of sensible beings, and gives him all the advantage and dominion which he has over them, it is certainly a subject, even for its nobleness, worth our labour to inquire into. The Understanding, like the eye, whilst it makes us see and perceive all other things, takes no notice of itself; and it requires art and pains to set it at a distance, and make it its own object. But whatever be the difficulties that lie in the way of this inquiry; whatever it be that keeps us so much in the dark to ourselves, sure I am that all the light we can let in upon our own minds, all the acquaintance we can make with our own Understandings, will not only be very pleasant, but bring us great advantage in directing our thoughts in the search of other things.

Design.—This therefore being my purpose, to inquire into the Original, Certainty, and Extent of human Knowledge, together with the grounds and degrees of Belief, Opinion, and Assent, I shall not at present meddle with the *physical* consideration of the Mind, or trouble myself to examine wherein its Essence consists; or by what motions of our spirits, or alterations of our bodies, we come to have any sensation by our organs, or any ideas in our Understandings; and whether those ideas do, in their formation, any or all of them, depend on matter or [not.] These are speculations which, however curious and entertaining, I shall decline, as lying out of my way in the design I am now upon. It shall suffice to my present purpose, to consider the discerning faculties of a man as they are employed about the objects which they have to do with; and I shall imagine I have not wholly misemployed myself in the thoughts I shall have on this occasion, if, in this historical, plain method, I can give any account of the ways whereby our Understandings come to obtain those notions of things we have, and can set down any measures of the *certainty* of our Knowledge, or the *grounds* of those Persuasions which are to be found amongst men, so various, different, and wholly contradictory; and yet asserted somewhere or other with such assurance and confidence, that he that shall take a view of the opinions of mankind, observe their opposition, and at the same time consider the fondness and devotion wherewith they are embraced, the resolution and eagerness wherewith they are maintained, may perhaps have reason to suspect that either there is no such thing as Truth at all, or that mankind hath no sufficient means to attain a certain knowledge of it.

Method.—It is therefore worth while to search out the bounds between Opinion and Knowledge; and examine by what measures, in things whereof we have no certain Knowledge, we ought to regulate our Assent, and moderate our Persuasions. In order whereunto I shall pursue this following method:—

First, I shall inquire into the Original of those Ideas, or Notions, which a man observes, and is conscious to himself he has in his mind; and the ways whereby the Understanding comes to be furnished with them.

Secondly, I shall endeavour to show what Knowledge the Understanding hath by those ideas, and the Certainty, Evidence, and Extent of it.

Thirdly, I shall make some inquiry into the nature and grounds of Faith or Opinion; whereby I mean, that Assent which we give to any proposition as true, of whose truth yet we have no certain Knowledge: and here we shall have occasion to examine the reasons and degrees of Assent.

Useful to know the extent of our comprehension.—If, by this inquiry into the nature of the Understanding, I can discover the powers thereof, I suppose it may be of use to prevail with the busy Mind of man to be more cautious in meddling with things exceeding its comprehension. We should not then, perhaps, be so forward, out of an affectation of an universal Knowledge, to raise questions, and perplex ourselves and others with disputes, about things to which our Understandings are not suited, and of which we cannot frame in our minds any clear or distinct perceptions; or whereof (as it has, perhaps, too often happened) we have not any notions at all.

Our capacity suited to our state and concerns.—For, though the comprehension of our Understandings comes exceeding short of the vast extent of things, yet we shall have cause enough to magnify the bountiful Author of our being for that proportion* and degree of Knowledge he has bestowed on us, so far above all the rest of the inhabitants of this our mansion. Men have reason to be well satisfied with what God hath thought fit for them, since he has given them, as St. Peter says, *πάντα πρὸς ζωὴν καὶ εὐσέβειαν*, "whatsoever is necessary for the conveniences of life, and information of virtue;" and has put within the reach of their discovery the comfortable provision for this life, and the way that leads to a better. How short soever their Knowledge may come of a universal or perfect comprehension of whatsoever is, it yet secures their great concernments that they have light enough to lead them to the Knowledge of their Maker, and the sight of their own duties. It will be no excuse for an idle and untoward servant, who would not attend his business by candle-light, to plead that he had not broad sunshine. The candle that is set up in us shines bright enough for all our purposes. The discoveries we can make with this ought to satisfy us; and we shall then use our Understandings aright, when we entertain all objects in that way and proportion that they are suited to our Faculties, and upon those grounds they are capable of being proposed to us; and not peremptorily or intemperately require Demonstration, and demand Certainty, where Probability only is to be had, and which is sufficient to govern all our concernments. If we will disbelieve everything because we cannot certainly *know* all things, we shall do much as wisely as he who would not use his legs, but sit still and perish, because he had no wings to fly.

---

* Some editions read "portion."—Ed.

Knowledge of our capacity a cure of scepticism and idleness.—When we know our own strength, we shall the better know what to undertake with hopes of success; and when we have well surveyed the powers of our own minds, and made some estimate [of] what we may expect from them, we shall not be inclined either to sit still, and not set our thoughts on work at all, in despair of *knowing any* thing; or, on the other side, question everything, and disclaim all Knowledge, because some things are not to be understood. It is of great use to the sailor to know the *length* of his line, though he cannot with it fathom all the depths of the ocean; it is well he knows that it is long enough to reach the bottom at such places as are necessary to direct his voyage, and caution him against running upon shoals that may ruin him. Our business here is not to know all things, but those which concern our conduct. If we can find out those measures whereby a rational creature, put in that state [in] which man is in this world, may and ought to govern his opinions, and actions depending thereon, we need not be troubled that some other things escape our knowledge.

What "idea" stands for.—IDEA being that term which, I think, serves best to stand for whatsoever is the *object*[*] of the Understanding when a man thinks, I have used it to express whatever is meant by Phantasm, Notion, Species, or whatever it is which the mind can be employed about in Thinking.

I presume it will be easily granted me that there are such Ideas in men's minds.[†] Every one is conscious of them in himself; and men's words and actions will satisfy him that they are in others.

Our first inquiry, then, shall be, *how* they come into the Mind.[‡]

---

[*] See note at foot of page xvi.

[†] This, it will be observed, is Locke's only Postulate.—ED.

[‡] The reasons for excluding the entire remainder of Book I. may be inferred from the preceding 'Preliminary Outline,' page xix. lines 5-12.—ED.

BOOK II.

CHAPTER I.

OF IDEAS IN GENERAL, AND THEIR ORIGINAL.

All ideas come from sensation or reflection.—Let us, then, suppose the mind to be, as we say, *white paper*, void of all characters—without any Ideas; *how* comes it to be furnished? *Whence* comes it by that vast store, which the busy and boundless fancy of man has painted on it, with an almost endless variety? Whence has it all the materials of Reason and Knowledge? To this I answer, in one word—from EXPERIENCE: in that all our Knowledge is founded, and from that it ultimately derives itself. Our *observation*, employed either about external sensible objects, or about the internal operations of our minds, perceived and reflected on by ourselves, is that which supplies our Understandings with all the materials of Thinking. These two are the fountains of Knowledge, from whence all the ideas we have, or can naturally have, do spring.

The objects of sensation one source of ideas.—*First*, Our Senses, conversant about particular sensible objects, do convey into the mind several distinct perceptions of things, according to [the] various ways wherein those objects do effect them; and thus we come by those ideas we have of 'yellow,' 'white,' 'heat,' 'cold,' 'soft,' 'hard,' 'bitter,' 'sweet,' and all those which we call Sensible Qualities: which when I say the senses convey into the mind, I mean—they from external objects convey into the mind *what produces there* those perceptions. This great source of most of the ideas we have, depending wholly upon our senses, and derived by them to the Understanding, I call—SENSATION.

The operations of our minds the other source of them.—*Secondly*, The other fountain from which experience furnishes the Understanding with ideas is—the Perception of the operations of our own minds within us, as it is employed about the ideas it has got; which operations, when the soul comes to reflect on and consider [them], do furnish the Understanding with another set of ideas which could not be had from things without; and such are Perception, Thinking, Doubting, Believing, Reasoning, Knowing, Willing, and all the different actings of our own minds; which we being conscious of, and observing in ourselves, do from these receive into our Understandings as distinct ideas as we do from bodies affecting our senses. This source of ideas every man has wholly in himself; and though it be not Sense, as having nothing to do with external objects, yet it is very like it, and might properly enough be called Internal Sense. But as I call the other sensation, so I call this—REFLECTION; the ideas it affords being such only as the mind gets by *reflecting* on its own operations within itself. By Reflection, then, in the following part of this discourse, I would be understood to mean—That notice which the mind takes of its own operations and the manner of them; by reason whereof there come to be ideas of these operations in the Understanding. The term "operations" here I use in a large sense, as comprehending not barely the actions of the mind about its ideas, but some sort of passions arising sometimes from them, such as is the satisfaction or uneasiness arising from any thought.

All our ideas are of the one or the other of these.—Let any one examine his own thoughts, and thoroughly search into his Understanding, and then let him tell me, whether all the original ideas he has there are any other than of the objects of his Senses, or of the operations of his mind considered as objects of his Reflection; and how great a mass of Knowledge soever he imagines to be lodged there, he will, upon taking a strict view, see that he has not any idea in his mind but what one of these two have imprinted, though perhaps with infinite variety Compounded, and Enlarged by the Understanding, as we shall see hereafter.

Observable in children.—He that attentively considers the state of a child at his first coming into the world, will [observe that] it is by degrees he comes to be furnished with ideas; and though the ideas of obvious and familiar qualities imprint themselves before the Memory begins to keep a register of time or order, yet it is often so late before some unusual qualities come in the way, that there are few men that cannot recollect the beginning of their acquaintance with them: and, if it were worth while, no doubt a child might be so ordered as to have but a very few even of the ordinary ideas till he were grown up to a man. But all that are born into the world, being surrounded with bodies that perpetually and diversely affect them, variety of ideas, whether care be taken or [not], are imprinted on the minds of children. Light and colours are busy at hand everywhere when the eye is but open; sounds and some tangible qualities fail not to solicit their proper senses, and force an entrance to the mind; but yet, I think it will be granted easily, that if a child were kept in a place where he never saw any other but black and white till he were a man, he would have no more idea of scarlet or green, than he that from his childhood never tasted an oyster or a pine-apple has of those particular relishes.

Men are differently furnished with these, according to the different objects they converse with.—Men, then, come to be furnished with fewer or more simple ideas from without, according as the objects they converse with afford greater or less variety; and from the operations of their minds within, according as they more or less reflect on them. For, though he that contemplates the operations of his mind cannot but have plain and clear ideas of them; yet, unless he turn his thoughts that way, and consider them attentively, he will no more have clear and distinct ideas of all the operations of his mind, and all that may be observed therein, than he will have of all the particular ideas of any landscape, or of the parts and motions of a clock, who will not turn his eyes to it, and with attention heed all the parts of it. The picture [and] clock may be so placed, that they may come in his way every day; but yet he will have but a confused idea of all the parts they are made up of, till he applies himself with attention to consider them each in particular.

Ideas of reflection later, because they need attention.—And hence we see the reason why it is pretty late before most children get ideas of the operations of their own minds; and some have not any very clear or perfect ideas of the greatest part of them all their lives. The first years are usually employed and diverted in looking abroad. Men's business in them is to acquaint themselves with what is to be found without; and so, growing up in a constant attention to outward sensations, seldom make any considerable reflection on what passes within them, till they come to be of riper years; and some scarce ever at all.

The soul begins to have ideas when it begins to perceive.—To ask *at what time* a man has first any ideas is to ask *when* he begins to *perceive;* having ideas, and perception, being the same thing. I know it is an opinion, that the soul always thinks; and that it has the actual perception of ideas in itself constantly, as long as it exists; and that actual Thinking is as inseparable from the soul, as actual Extension is from the body; which if true, to inquire after the beginning of a man's ideas, is the same as to inquire after the beginning of his soul. For, by this account, Soul and its ideas, as Body and its extension, will begin to exist both at the same time.

[But] he that will suffer himself to be informed by *observation* and *experience*, and not make his own hypothesis the rule of nature, will find few signs of a soul accustomed to much thinking in a new-born child, and much fewer of any reasoning at all. And yet it is hard to imagine, that the rational Soul should think so much, and not reason at all.

Follow a child from its birth, and observe the alterations that time makes, and you shall find, as the mind by the senses comes more and more to be furnished with ideas, it comes to be more and more awake, thinks more the more it has matter to think on. After some time it begins to know the objects which, being most familiar with it, have made lasting impressions. Thus it comes by degrees to know the persons it daily converses with, and distinguish them from strangers; which are instances and effects of its coming to retain and distinguish the ideas the senses convey to it: and so we may observe how the mind, by degrees, improves in these, and advances to the exercise of those other faculties of Enlarging, Compounding, and Abstracting its ideas, and of reasoning about them, and Reflecting upon all these; of which I shall have occasion to speak more hereafter.

If it shall be demanded, then, *when* a man begins to have any ideas? I think, the true answer is, *When* he first has any Sensation. For since there appear not to be any ideas in the mind before the senses have conveyed any in, I conceive that ideas in the Understanding are coeval with Sensation, which is such an impression or motion made in some part of the body as produces some *perception* in the Understanding. It is about these impressions, made on our senses by outward objects, that the mind seems first to employ itself in such operations as we call Perception, Remembering, Consideration, Reasoning, &c.

In the reception of simple ideas the understanding is for the most part passive.—In this part the Understanding is merely passive; and whether or no it will have these beginnings and, as it were, materials of Knowledge, is not in its own power. For the objects of our senses do, many of them, obtrude their particular ideas upon our minds, whether we will or no; and the operations of our minds will not let us be without at least some obscure notions of them. No man can be wholly ignorant of what he does when he Thinks. These simple ideas, when offered to the mind, the Understanding can no more refuse to have, nor alter when they are imprinted, nor blot them out, and make new ones itself, than a mirror can refuse, alter, or obliterate the images or ideas which the objects set before it do therein produce. As the bodies that surround us do diversely affect our organs, the mind is forced to receive the impressions, and cannot avoid the perception of those ideas that are annexed to them.

CHAPTER II.

OF SIMPLE IDEAS.

Uncompounded appearances.—The better to understand the nature, manner, and extent of our Knowledge, one thing is carefully to be observed concerning the Ideas we have; and that is, that some of them are Simple, and some Complex.

Though the qualities that affect our senses are, in the things themselves, so united and blended that there is no separation, no distance between them; yet it is plain the ideas they produce in the mind enter by the senses simple and unmixed. For though the sight and touch often take in from the same object, at the same time, different ideas,—as a man sees at once motion and colour, the hand feels softness and warmth in the same piece of wax,—yet the simple ideas thus united in the same subject are as perfectly *distinct* as those that come in by different senses; the coldness and hardness which a man feels in a piece of ice being as distinct ideas in the mind as the smell and whiteness of a lily; or as the taste of sugar and smell of a rose: and nothing can be plainer to a man than the clear and distinct perception he has of those simple ideas; [each of which,] being in itself uncompounded, contains in it nothing but one uniform appearance or conception in the mind, and is not distinguishable into *different* ideas.

The mind can neither make nor destroy them.—When the Understanding is once stored with these simple ideas, it has the power to repeat, compare, and unite them, even to an almost infinite variety; and so can make at pleasure new Complex ideas. But it is not in the power of the most exalted wit or enlarged Understanding, by any quickness or variety of thought, to invent or frame *one new* Simple Idea in the mind, not taken in by the ways before mentioned; nor can any force of the Understanding destroy those that are there: the dominion of man in this little world of his own Understanding being much the same as it is in the great world of visible things, wherein his power, however managed by art and skill, reaches no farther than to *compound* and *divide* the materials that are made to his hand; but can do nothing towards the making the least particle of new matter, or destroying one atom of what is already in being.

I would have any one *try* to fancy any taste which had never affected his palate, or frame the idea of a scent he had never smelt; and when he can do this, I will also conclude that a blind man hath ideas of colours, and a deaf man true, distinct notions of sounds.

This is the reason why, though we cannot believe it impossible to God to make a creature with *other* organs, and *more* ways to convey into the Understanding the notice of corporeal things than those five, as they are usually counted, which He has given to man; yet I think it is not possible for any one to imagine any other qualities in bodies, howsoever constituted, whereby they can be taken notice of, besides Sounds, Tastes, Smells, Visible and Tangible Qualities: and had mankind been made with but four senses, the qualities then which are the object of the fifth sense had been as far from our notice, imagination, and conception, as now any belonging to a sixth, seventh, or eighth sense can possibly be; which, whether yet some other creatures, in some other parts of this vast and stupendous universe, may not have, [it] will be a great presumption to deny. He that will not set himself proudly at the top of all things, but will consider the immensity of this fabric, and the great variety that is to be found in this little and inconsiderable part of it which he has to do with, may be apt to think that in other mansions of it there may be other and different intelligent beings, of whose faculties he has as little knowledge or apprehension as a worm shut up in one drawer of a cabinet hath of the senses or Understanding of a man; such variety and excellency being suitable to the wisdom and power of the Maker. I have here followed the common opinion of man's having but Five Senses; though, perhaps, there may be justly counted more. But either supposition serves equally to my present purpose.

◆

CHAPTER III.

OF IDEAS OF ONE SENSE.

Division of simple ideas.—The better to conceive the ideas we receive from Sensation, it may not be amiss for us to consider them in reference to the different ways whereby they make their approaches to our minds, and make themselves perceivable by us.

First, then, there are some which come into our minds by one sense only.

Secondly, There are others that convey themselves into the mind by more senses than one.

Thirdly, Others that are had from reflection only.

Fourthly, There are some that are suggested to the mind by all the ways of sensation and reflection.

We shall consider them apart under these several heads.

Ideas of one sense.—There are some ideas which have admittance only through One Sense, which is peculiarly adapted to receive them. Thus light and colours, with their several degrees or shades and mixtures, come in only by the eyes; all kind of noises, sounds, and tones, only by the ears; the several tastes and smells, by the nose and palate. And if these organs, or the nerves which are the conduits to convey them from without to their audience in the brain, the mind's presence-room (as I may so call it), are, any of them, so disordered as not to perform their functions, they have no postern to be admitted by, no other way to bring themselves into view, and be perceived by the Understanding.

The most considerable of those belonging to the touch are Heat, Cold, and Solidity; all the rest—consisting almost wholly in the sensible configuration, as smooth and rough; or else more or less firm adhesion of the parts, as hard and soft, tough and brittle—are obvious enough.

Few simple ideas have names.—I think it will be needless to enumerate all the particular simple ideas belonging to each sense. Nor indeed is it possible, if we would; there being a great many more of them belonging to most of the senses than we have names for. The variety of smells, which are as many almost, if not more than species of bodies in the world, do most of them want names. Sweet, bitter, sour, harsh, and salt, are almost all the epithets we have to denominate that numberless varieties of relishes which are to be found distinct, not only in almost every sort of creatures, but in the different parts of the same plant, fruit, or animal. The same may be said of colours and sounds. I shall therefore, in the account of Simple ideas I am here giving, content myself to set down only such as are most material to our present purpose, or are in themselves less apt to be taken notice of, though they are very frequently the ingredients of our Complex ideas; amongst which I think I may well account Solidity.

CHAPTER IV.

OF SOLIDITY.

We receive this idea from touch.—The idea of Solidity we receive by our Touch; and it arises from the resistance which we find in body to the entrance of any other body into the place it possesses, till it has left it. There is no idea which we receive more constantly from sensation than Solidity. Whether we move or rest, in what posture soever we are, we always feel something under us that supports us, and hinders our farther sinking downwards; and the bodies which we daily handle make us perceive, that whilst they remain between them, they do, by an insurmountable force, hinder the approach of the parts of our hands that press them. That which thus hinders the approach of two bodies, when they are moving one towards another, I call Solidity. I will not dispute whether this acceptation of the word solid be nearer to its original signification than that which mathematicians use it in: it suffices, that the common notion of Solidity will allow, if not justify, this use of it; but if any one think it better to call it Impenetrability, he has my consent. Only I have thought the term Solidity the more proper to express this idea, not only because of its vulgar use in that sense, but also because it carries something more of *positive* in it than Impenetrability, which is negative; and is, perhaps, more a *consequence* of solidity than Solidity itself. This, of all others, seems the idea most intimately connected with and essential to Body, so as nowhere else to be found or imagined but only in Matter; and though our senses take no notice of it but in masses of matter, of a bulk sufficient to cause a sensation in us; yet the mind, having once got this idea from such grosser sensible bodies, traces it farther, and considers it, as well as Figure, in the minutest particle of matter that can exist, and finds it inseparably inherent in body, wherever or however modified.

Solidity fills space.—This is the idea which belongs to Body, whereby we conceive it to fill Space. The idea of which filling of space is, that where we imagine any space taken up by a solid substance, we conceive it so to possess it that it excludes all other solid substances; and will for ever hinder any two bodies, that move towards one another in a straight line, from coming to touch one another, unless it removes from between them in a line not parallel to that which they move in. This idea of it the bodies which we ordinarily handle sufficiently furnish us with.

Distinct from space.—This resistance, whereby it keeps other bodies out of the space which it possesses, is so great that no force, how great soever, can surmount it. All the bodies in the world, pressing a drop of water on all sides, will never be able to overcome the resistance which it will make, as soft as it is, to their approaching one another, till it be removed out of their way: whereby our idea of Solidity is distinguished both from pure Space, which is capable neither of resistance nor motion, and from the ordinary idea of Hardness. For a man may conceive two bodies at a distance, so as they may approach one another without touching or displacing any solid thing, till their superficies come to meet; whereby, I think, we have the clear idea of Space *without* Solidity. For (not to go so far as annihilation of any particular body), I ask, whether a man cannot have the idea of the motion of one single body alone, without any other succeeding immediately into its place? I think it is evident he can: the idea of motion in one body no more including the idea of motion in another, than the idea of a square figure in one body includes the idea of a square figure in another. I do not ask, whether bodies do so exist, that the motion of one body cannot really be without the motion of another? To determine this, either way, is to beg the question for or against a *vacuum*. But my question is, whether one cannot have the *idea* of one body moved, whilst others are at rest? And, I think, this no one will deny; if so, then the place it deserted gives us the idea of pure Space without solidity, whereinto any other body may enter without either resistance or protrusion of anything. When the sucker in a pump is drawn, the space it filled in the tube is certainly the same, whether any other body follows the motion of the sucker or not: nor does it imply a contradiction, that, upon the motion of one body, another that is only contiguous to it should not follow it. The necessity of such a motion is built only on the supposition that the World is *full;* but not on the distinct ideas of Space and Solidity; which are as different as resistance and [non]-resistance, protrusion and [non]-protrusion. And that men have *ideas* of Space without Body their very disputes about a *vacuum* plainly demonstrate.

From hardness.—Solidity is hereby also differenced from Hardness, in that Solidity consists in repletion, and so an utter exclusion of other bodies out of the space it possesses; but Hardness, in a firm cohesion of the parts of Matter, making up masses of a sensible bulk, so that the whole does not easily change its Figure. And, indeed, hard and soft are names that we give to things only in relation to the constitutions of our own bodies; that being generally called hard by us which will put us to pain sooner than change figure by the pressure of any part of our bodies; and that, on the contrary, soft which changes the situation of its parts upon an easy and unpainful touch.

But this difficulty of changing the situation of the sensible parts amongst themselves, or of the figure of the whole, gives no more *solidity* to the hardest body in the world than to the softest; nor is an adamant one jot more *solid* than water. For though the two flat sides of two pieces of marble will more easily approach each other, between which there is nothing but water or air, than if there be a diamond between them; yet it is not that the parts of the diamond are more solid than those of water, or resist more, but because the parts of water being more easily separable from each other, they will by a side-motion be more easily removed and give way to the approach of the two pieces of marble: but if they could be kept from making place by that side motion, they would eternally hinder the approach of these two pieces of marble as much as the diamond: and it would be as impossible by any force to surmount their resistance, as to surmount the resistance of the parts of a diamond. The softest body in the world will as invincibly resist the coming together of any two other bodies, if it be not put out of the way but remain between them, as the hardest that can be found or imagined. He that shall fill a yielding soft body well with air or water will quickly find its resistance; and he that thinks that nothing but bodies that are *hard* can keep his hands from approaching one another may be pleased to make a trial with the air enclosed in a foot-ball. The experiment, I have been told, was made at Florence, with a hollow globe of gold filled with water, and exactly closed: which farther shows the Solidity of so soft a body as water. For, the golden globe thus filled being put into a press which was driven by the extreme force of screws, the water made itself way through the pores of that very close metal; and, finding no room for a nearer approach of its particles within, got to the outside, where it rose like a dew, and so fell in drops before the sides of the globe could be made to yield to the violent compression of the engine that squeezed it.

On solidity depend impulse, resistance, and protrusion.—By this idea of Solidity is the *extension* of Body distinguished from the *extension* of Space: the Extension of Body being nothing but the cohesion or continuity of solid, separable, moveable parts; and Extension of Space, the continuity of unsolid, inseparable, and immoveable parts. Upon the Solidity of bodies also depend their mutual Impulse, Resistance, and Protrusion. Of pure Space, then, and Solidity, there are several (amongst [whom] I confess myself one) who persuade themselves they have clear and distinct ideas; and that they can think on Space without any thing in it that resists or is protruded by Body. This is the idea of pure Space, which they think they have as clear as any idea they can have of the Extension of Body; the idea of the distance between the opposite parts of a concave superficies being equally as clear without as with the idea of any solid parts between; and on the other side they persuade themselves that they have, distinct from that of pure space, the idea of something that fills space, that can be protruded by the impulse of other bodies, or resist their motion.

What it is.—If any one asks me, what this Solidity *is*, I send him to his senses to inform him: let him put a flint or a foot-ball between his hands, and then endeavour to join them, and he will know. If he thinks this not a sufficient explication of Solidity, what it is, and wherein it consists, I promise to tell him what it is, and wherein it consists, when he tells me what Thinking is, or wherein it consists; or explains to me what Extension or Motion is, which perhaps seems much easier. The simple ideas we have are such as Experience teaches them us; but if, beyond that, we endeavour by words to make them clearer in the mind, we shall succeed no better than if we went about to clear up the darkness of a blind man's mind by talking, and to discourse into him the ideas of light and colours. The reason of this I shall show in another place.

◆

CHAPTER V.

OF SIMPLE IDEAS OF DIVERS SENSES.

The ideas we get by more than one sense are of Space or Extension, Figure, Rest, and Motion: for these make perceivable impressions both on the eyes and touch: and we can receive and convey into our minds the ideas of the extension, figure, motion, and rest of bodies, both by seeing and feeling. But having occasion to speak more at large of these in another place, I here only enumerate them.

CHAPTER VI.

OF SIMPLE IDEAS OF REFLECTION.

Simple ideas of reflection are the operations of the mind about its other ideas.—The mind, receiving the ideas mentioned in the foregoing chapters from without, when it turns its view inward upon itself, and observes its own actions about those ideas it has, takes from thence other ideas, which are as capable to be the objects of its contemplation as any of those it received from foreign things.

The idea of perception, and idea of willing, we have from reflection.—The two great and principal actions of the mind, which are most frequently considered, and which are so frequent that every one that pleases may take notice of them in himself, are these two: Perception, or Thinking; and Volition, or Willing. The power of Thinking is called the Understanding; and the power of Volition is called the Will: and these two powers or abilities in the mind are denominated Faculties. Of some of the modes of these simple ideas of Reflection, such as are Remembrance, Discerning, Reasoning, Judging, Knowledge, Faith, &c., I shall have occasion to speak hereafter.

CHAPTER VII.

OF SIMPLE IDEAS OF BOTH SENSATION AND REFLECTION.

Pleasure and Pain.—There be other simple ideas which convey themselves into the mind by all the ways of sensation and reflection; viz. Pleasure, Pain, Power, Existence, Unity.

Delight or uneasiness, one or other of them, join[s itself] to almost all our ideas of Sensation or Reflection; and there is scarce any affection of our senses from without, any retired thought of our mind within, which is not able to produce in us pleasure or pain. By Pleasure and Pain I would be understood to signify whatsoever delights or molests us; whether it arises from the thoughts of our minds, or anything operating on our bodies. For whether we call it satisfaction, delight, pleasure, happiness, &c., on the one side; or uneasiness, trouble, pain, torment, anguish, misery, &c., on the other; they are still but different degrees of the same thing, and belong to the ideas of Pleasure and Pain, delight or uneasiness; which are the names I shall most commonly use for those two sorts of ideas.

The infinitely wise Author of our being,—having given us the power over several parts of our bodies, to move or keep them at rest as we think fit, and also by the motion of them to move ourselves and other* contiguous bodies, in which consist all the actions of * body; having also given a power to our minds, in several instances, to choose amongst its ideas *which* it will think on, and to pursue the inquiry of this or that subject with consideration and attention,—to excite us to those actions of Thinking and Motion that we are capable of,—has been pleased to join to several thoughts and several sensations a perception of delight. If this were wholly separated from all our outward sensations and inward thoughts, we should have no reason to prefer one thought or action to another, negligence to attention, or motion to rest: and so we should neither stir our bodies, nor employ our minds; but let our thoughts (if I may so call it) run adrift, without any direction or design; and suffer the ideas of our minds, like unregarded shadows, to make their appearances there, as it [might] happen, without attending to them: in which state man, however furnished with the faculties of Understanding and Will, would be a very idle, [in]-active creature, and pass his time only in a lazy, lethargic dream. It has therefore pleased our wise Creator to annex to several objects, and to the ideas which we receive from them, as also to several of our thoughts, a concomitant pleasure, and *that* in several objects to several degrees, that those faculties which he had endowed us with might not remain wholly idle and unemployed by us.

---

* The sixth and ninth 8vo editions have *our* instead of *other*. The latter is the reading of the fourth edition (folio).—Ed.

Pain has the same efficacy and use to set us on work that Pleasure has; we being as ready to employ our faculties to avoid that, as to pursue this: only this is worth our consideration—that pain is often produced by the same objects and ideas that produce pleasure in us. This, their near conjunction, which makes us often feel pain in the sensations where we expected pleasure, gives us new occasion of admiring the wisdom and goodness of our Maker; who, designing the preservation of our being, has annexed pain to the application of many things to our bodies, to warn us of the harm that they will do, and as advices to withdraw from them. But He, not designing our preservation barely, but the preservation of every part and organ in its perfection, hath in many cases annexed pain to those very ideas which delight us. Thus heat, that is very agreeable to us in one degree, by a little greater increase of it proves no ordinary torment; and the most pleasant of all sensible objects, light itself, if there be too much of it, if increased beyond a due proportion to our eyes, causes a very painful sensation: which is wisely and favourably so ordered by nature, that when any object does, by the vehemency of its operation, disorder the instruments of sensation, whose structures cannot but be very nice and delicate, we might by the pain be warned to withdraw before the organ be quite put out of order, and so be unfitted for its proper function for the future. The consideration of those objects that produce it may well persuade us, that this is the end or *use* of Pain: for though great light be insufferable to our eyes, yet the highest degree of darkness does not at all disease them, because the causing no disorderly motion in it leaves that curious organ unharmed in its natural state. But yet excess of cold as well as heat pains us, because it is equally destructive to that temper which is necessary to the preservation of life, and the exercise of the several functions of the body; and which consists in a moderate degree of warmth, or a motion of the insensible parts of our bodies confined within certain bounds.

---

* This is the reading of the sixth edition. Many of the later editions insert *our* before "body."—Ed.

Beyond all this, we may find another reason why God hath scattered up and down several degrees of Pleasure and Pain in all the things that environ and affect us, and blended them together in almost all that our thoughts and senses have to do with; that we, finding imperfection, dissatisfaction, and want of complete happiness in all the enjoyments which *creatures* can afford us, might be led to seek it in the enjoyment of Him "with whom there is fulness of joy, and at whose right hand are pleasures for evermore."

Pleasure and pain.—Though what I have here said may not perhaps make the ideas of Pleasure and Pain clearer to us than our own Experience does, which is the only way that we are capable of having them; yet the consideration of the reason *why* they are annexed to so many other ideas, serving to give us due sentiments of the wisdom and goodness of the Sovereign Disposer of all things, may not be unsuitable to the main end of these inquiries: the knowledge and veneration of Him being the chief end of all our thoughts, and the proper business of our Understanding.

Existence and unity.—Existence and Unity are two other ideas that are suggested to the Understanding by every object without, and every idea within. When ideas are in our minds, we consider them as being actually there, as well as we consider things to be actually without us; which is, that they exist, or have existence: and whatever we can consider as one thing, whether a real being or idea, suggests to the Understanding the idea of Unity.

Power.—Power also is another of those simple ideas which we receive from Sensation and Reflection. For, observing in ourselves that we can at pleasure move several parts of our bodies which were at rest, the effects also that natural bodies are able to produce in one another occurring every moment to our senses, we [in] both these ways get the idea of Power.

Succession.—Besides these there is another idea, which, though suggested by our senses, yet is more constantly offered us by what passes in our minds; and that is the idea of Succession. For if we look immediately into ourselves, and reflect on what is observable there, we shall find our ideas always, whilst we are awake or have any thought, passing in *train*, one going and another coming without intermission.

Simple ideas the materials of all our knowledge.—These, if they are not all, are at least (as I think) the most considerable of those Simple Ideas which the mind has; and out of which is made all its other Knowledge: all which it receives only by the two fore-mentioned ways of Sensation and Reflection.

Nor let any one think these too narrow bounds for the capacious mind of man to expatiate in, which takes its flight farther than the stars, and cannot be confined by the limits of the world; that extends its thoughts often even beyond the utmost expansion of matter, and makes excursions into that incomprehensible *inane*. I grant all this; but desire any one to *assign any* Simple idea which is not received from one of those inlets before-mentioned; or any Complex idea not made out of those Simple ones. Nor will it be so strange to think these few simple ideas sufficient to employ the quickest thought or largest capacity, and to furnish the materials of all that various Knowledge and more various fancies and opinions of all mankind, if we consider how many words may be made out of the various composition of twenty-four letters; or if, going one step farther, we will but reflect on the variety of combinations [that] may be made with barely *one* of the above-mentioned ideas, viz. Number, whose stock is inexhaustible and truly infinite: and what a large and immense field doth Extension alone afford the mathematicians!

CHAPTER VIII.

SOME FARTHER CONSIDERATIONS CONCERNING OUR SIMPLE IDEAS.

Positive ideas from privative causes.—Concerning the simple ideas of Sensation it is to be considered, that whatsoever is so constituted in nature as to be able by affecting our senses to cause any perception in the mind, doth thereby produce in the Understanding a Simple Idea; which, whatever be the external *cause* of it, when it comes to be taken notice of by our discerning faculty, is by the mind looked on and considered there to be a *real positive* idea in the Understanding, as much as any other whatsoever; though perhaps the cause of it be but a privation in the subject.

Thus the ideas of heat and cold, light and darkness, white and black, motion and rest, are equally clear and positive ideas in the mind; though perhaps some of the causes which produce them are barely privations in subjects from whence our senses derive those ideas. These the Understanding, in its view of them, considers all as distinct positive ideas without taking notice of the causes that produce them; which is an inquiry not belonging to the idea as it is in the Understanding, but to the *nature* of the things existing *without* us. These are two very different things, and carefully to be distinguished; it being one thing to perceive and know the idea of white or black, and quite another to examine what kind of particles they must be, and how ranged in the superficies, to make any object *appear* white or black.

A painter or dyer who never inquired into their causes hath the ideas of white and black and other colours as clearly, perfectly, and distinctly in his Understanding, and perhaps more distinctly than the philosopher who hath busied himself in considering their natures, and thinks he knows how far either of them is in its cause positive or privative; and the idea of black is no less positive in his mind than that of white, however the cause of that colour in the external object may be only a privation.

If it were the design of my present undertaking to inquire into the natural causes and manner of perception, I should offer this as a reason why a privative cause might, in some cases at least, produce a positive idea, viz., that all sensation being produced in us only by different degrees and modes of motion in our animal spirits, variously agitated by external objects, the abatement of any former motion must as necessarily produce a new sensation, as the variation or increase of it; and so introduce a new Idea, which depends only on a different motion of the animal spirits in that organ.

But whether this be so or [not] I will not here determine; but appeal to every one's own *experience*, whether the shadow of a man, though it consists of nothing but the absence of light (and the more the absence of light is, the more discernible is the shadow), does not, when a man looks on it, cause as clear and positive an idea in his mind as a man himself, though covered over with clear sunshine? And the *picture* of a shadow is a positive thing. Indeed, we have negative names, which stand not directly for positive ideas, but for their absence, such as insipid, silence, nihil, &c.; which words denote positive ideas, v. g. taste, sound, being, with a signification of their absence.

Positive ideas from privative causes.—And thus one may truly be said to *see* darkness. For, supposing a hole perfectly dark, from whence no light is reflected, it is certain one may see the figure of it, or it may be painted; or whether the ink I write with makes any other idea, is a question. The privative causes I have here assigned of positive ideas are according to the common opinion; but, in truth, it will be hard to determine whether there be really any ideas from a privative cause, till it be determined whether rest be any more a *privation* than motion.

Ideas in the mind, qualities in bodies.—To discover the nature of our ideas the better, and to discourse of them intelligibly, it will be convenient to distinguish them, as they are ideas or perceptions in our Minds, and as they are modifications of Matter in the bodies that cause such perceptions in us; that so we may not think (as perhaps usually is done) that they are exactly the *images* and *resemblances* of something inherent in the subject; most of those of sensation being in the mind no more the likeness of something existing without us than the *names* that stand for them are the likeness of our *ideas;* which yet upon hearing they are apt to excite in us.

Whatsoever the mind perceives in itself, or is the immediate object of perception, thought, or Understanding, *that* I call Idea; and the Power to produce any idea in our mind, I call Quality of the subject wherein that power is. Thus a snowball having the power to produce in us the ideas of white, cold, and round, the powers to produce those ideas in us as they are in the snowball, I call *qualities;* and as they are sensations or perceptions in our Understandings, I call them *ideas;* [by] which ideas, if I speak of them sometimes as in the things themselves, I would be understood to mean *those qualities in the objects which produce them in us.*

Primary qualities.—Qualities thus considered in bodies are, *First,* such as are utterly inseparable from the body, in what estate soever it be; such as, in all the alterations and changes it suffers, all the force [that] can be used upon it, it constantly keeps: and such as Sense constantly finds in every particle of matter which has bulk enough to be perceived, and the mind finds inseparable from every particle of matter, though less than to make itself singly perceived by our senses: v. g. take a grain of wheat, divide it into two parts, each part has still solidity, extension, figure, and mobility; divide it again, and it retains still the same qualities; and so divide it on till the parts become insensible, they must retain still each of them all those qualities. For, *division* (which is all that a mill or pestle or any body does upon another, in reducing it to insensible parts) can never take away either solidity, extension, figure, or mobility from any body, but only makes two or more distinct separate masses of matter of that which was but one before; all which distinct masses, reckoned as so many distinct bodies, after division, make a certain number. These I call Original or Primary qualities of Body, which I think we may observe to produce simple ideas in us, viz. Solidity, Extension, Figure, Motion or Rest, and Number.

Secondary qualities.—Secondly, Such qualities, which in truth are nothing in the objects themselves, but powers to produce various sensations in us by their primary qualities, i. e. by the bulk, figure, texture, and motion of their insensible parts, as colours, sounds, tastes, &c. These I call Secondary qualities. To these might be added a third sort, which are allowed to be barely Powers; though they are as much real qualities in the subject as those which I, to comply with the common way of speaking, call Qualities, but, for distinction, Secondary qualities. For, the power in fire to produce a new colour or consistency in wax or clay by its primary qualities, is as much a quality in fire as the power it has to produce in me a new idea or sensation of warmth or burning, which I felt not before, by the same primary qualities, viz. the bulk, texture, and motion of its insensible parts.

How primary qualities produce their ideas.—The next thing to be considered is, *how* Bodies produce ideas in us; and that is manifestly by Impulse, the only way which we can conceive bodies to operate in.

If, then, external objects be not *united* to our minds when they produce ideas therein, and yet we perceive these Original Qualities in such of them as singly fall under our senses, it is evident that some motion must be thence continued by our nerves or animal spirits, by some parts of our bodies, to the brain or the seat of Sensation; there to produce in our minds the particular ideas we have of them. And since the extension, figure, number, and motion of bodies of an observable bigness, may be perceived at a distance by the sight, it is evident some singly imperceptible bodies must come from them to the eyes, and thereby convey to the brain some motion which produces these ideas which we have of them.

How secondary.—After the same manner that the ideas of these Original qualities are produced in us, we may conceive that the ideas of Secondary qualities are also produced, viz. by the operation of insensible particles on our senses. For it being manifest that there are bodies, and good store of bodies, [all] whereof are so small that we cannot by any of our senses discover either their bulk, figure, or motion: (as is evident in the particles of air and water, and other extremely smaller than those; perhaps as much smaller than the particles of air and water as the particles of air and water are smaller than peas or hailstones): let us suppose at present that the different motions and figures, bulk and number, of such particles, affecting the several organs of our senses, produce in us those different sensations which we have from the colours and smells of bodies, v. g. that a violet, by the *impulse* of such insensible particles of matter of peculiar figures and bulks, and in different degrees and modifications of their motions, causes the ideas of the blue colour and sweet scent of that flower to be produced in our minds; it being no more impossible to conceive that God should annex such ideas to such motions with which they have no similitude, than that He should annex the idea of pain to the motion of a piece of steel dividing our flesh, with which that idea hath no *resemblance.*

What I have said concerning colours and smells may be understood also of tastes and sounds, and the like sensible qualities; which, whatever reality we by mistake attribute to them, are in truth nothing in the objects themselves, but Powers to produce various sensations in us; and depend on those primary qualities, viz. bulk, figure, texture, and motion of parts.

Ideas of primary qualities are resemblances; of secondary, not.—From whence I think it is easy to draw this observation, that the ideas of primary qualities of bodies are resemblances of them, and their patterns do really exist in the bodies themselves; but the ideas produced in us by these secondary qualities have no resemblance of them at all. There is nothing *like* our ideas existing in the bodies themselves. They are, in the bodies we denominate from them, only a Power to produce those sensations in us; and what is sweet, blue, or warm in idea, is but the certain bulk, figure, and motion of the insensible parts in the bodies themselves, which we call so.

Flame is denominated hot and light; snow, white and cold; and manna, white and sweet; from the ideas they produce in us: which qualities are commonly thought to be the same in those bodies that those ideas are in us, the one the perfect resemblance of the other, as they are in a mirror; and it would by most men be judged very extravagant if one should say otherwise. And yet he that will consider that the same fire that at one distance produces in us the sensation of *warmth*, does at a nearer approach produce in us the far different sensation of *pain*, ought to bethink himself what *reason* he has to say, that his idea of warmth which was produced in him by the fire is actually *in* the fire, and his idea of pain which the same fire produced in him in the same way is *not in* the fire. Why are whiteness and coldness in snow, and pain not, when [snow] produces the one and the other idea in us; and can do neither but by the bulk, figure, number, and motion of its solid parts?

The particular bulk, number, figure, and motion of the parts of fire or snow are really *in* them, whether any one's senses perceive them or [not]; and therefore they may be called Real qualities, because they really exist in those bodies. But light, heat, whiteness, or coldness, are no more really in them than sickness or pain is in manna. Take away the sensation of them; let not the eyes see light or colours, nor the ears hear sounds; let the palate not taste, nor the nose smell; and all colours, tastes, odours, and sounds, as they are such particular ideas, vanish and cease, and are reduced to their causes, i. e. bulk, figure, and motion of parts.

A piece of manna of a sensible bulk is able to produce in us the idea of a round or square figure; and, by being removed from one place to another, the idea of motion. This idea of motion represents it as it really is in the manna moving: a circle or square [is] the same, whether in idea or existence, in the mind or in the manna; and thus both motion and figure are really in the manna, whether we take notice of them or no: this everybody is ready to agree to. Besides, manna, by the bulk, figure, texture, and motion of its parts, has a power to produce the sensations of sickness, and sometimes of acute pains in us. That these ideas of sickness and pain are not in the manna, but effects of its operations on us, and are nowhere when we feel them not; this also every one readily agrees to. And yet men are hardly to be brought to think that sweetness and whiteness are not really in manna, which are but the effects of the operations of manna by the motion, size, and figure of its particles on the eyes and palate; as the pain and sickness caused by manna are confessedly nothing but the effects of its operations by the size, motion, and figure of its insensible parts (for by nothing else can a body operate, as has been proved): as if it could not operate on the eyes and palate, and thereby produce in the mind particular distinct ideas which in itself it has not, as well as we allow it can operate on the stomach, and thereby produce distinct ideas which in itself it has not. These ideas being all *effects* of the operations of manna on several parts of our bodies, by the size, figure, number, and motion of its parts, why those produced by the eyes and palate should rather be thought to be really in the manna than those produced by the stomach; or why the pain and sickness,—ideas that are the effects of manna,—should be thought to be nowhere when they are not felt; and yet the sweetness and whiteness,—effects of the same manna on other parts of the body, by ways equally as unknown,—should be thought to exist in the manna, when they are *not* seen or tasted, would need some reason to explain.

Ideas of primary qualities are resemblances; of secondary, not.—Let us consider the red and white colours in porphyry: hinder light from striking on it, and its colours vanish; it no longer produces any such ideas in us. Upon the return of light, it produces these appearances on us again. Can any one think any real alterations are made in the porphyry by the presence or absence of light, and that those ideas of whiteness and redness are really in porphyry in the light, when it is plain it has *no colour* in the dark? It has indeed such a configuration of particles, both night and day, as are apt, by the rays of light rebounding from some parts of that hard stone, to produce in us the idea of redness, and from others the idea of whiteness. But whiteness or redness [is] not *in* it at any time, but such a texture that hath the power to produce such a sensation in us.

Pound an almond, and the clear white colour will be altered into a dirty one, and the sweet taste into an oily one. What real alteration can the beating of the pestle make in any body, but an alteration of the *texture* of it?

Ideas being thus distinguished and understood, we may be able to give an account how the same water, at the same time, may produce the idea of cold by one hand, and of heat by the other; whereas it is impossible that the same water, if those ideas were really in it, should at the same time be both hot and cold. For if we imagine warmth, as it is in our hands, to be nothing but a certain sort and degree of motion in the minute particles of our nerves or animal spirits, we may understand how it is possible that the same water may, at the same time, produce the sensation of heat in one hand, and cold in the other; which yet figure never does, *that* never producing the idea of a square by one hand which has produced the idea of a globe by [the] other. But if the sensation of heat [or] cold be nothing but the increase or diminution of the motion of the minute parts of our bodies, caused by the corpuscles of any other body, it is easy to be understood that if that motion be greater in one hand than in the other, if a body be applied to the two hands which has in its minute particles a greater motion than [exists] in those of one of the hands and a less than [exists] in those of the other, it will increase the motion [in] the one hand, and lessen it in the other; and so cause the different sensations of heat and cold that depend thereon.

Three sorts of qualities in bodies.—The Qualities, then, that are in bodies, rightly considered, are of three sorts:

First, The bulk, figure, number, situation, and motion or rest of their solid parts; those are in them, whether we perceive them or [not]: and when they are of that size that we can discover them, we have by these an idea of the thing as it is in itself; as is plain in artificial things. These I call Primary qualities.

Secondly, The power that is in any body, by reason of its insensible primary qualities, to operate after a peculiar manner on any of our senses, and thereby produce in us the different ideas of several colours, sounds, smells, tastes, &c. These are usually called Sensible qualities.

Thirdly, The power that is in any body, by reason of the particular constitution of its primary qualities, to make such a change in the bulk, figure, texture, and motion of another body, as to make it operate on our senses differently from what it did before. Thus the sun has a power to make wax white; and fire, to make lead fluid. These are usually called Powers.

The first are resemblances; the second thought resemblances, but are not; the third neither are, nor are thought so.—But though these two latter sorts of qualities are Powers barely, and nothing but powers, relating to several other bodies, and resulting from the different modifications of the *original* qualities, yet they are generally otherwise thought of. For the second sort, viz. the powers to produce several ideas in us by our senses, are looked upon as Real qualities in the things thus affecting us; but the third sort are called and esteemed barely Powers, v. g. the idea[s] of heat or light, which we receive by our eyes or touch from the sun, are commonly thought real qualities existing in the sun, and something more than mere powers in it. But when we consider the sun in reference to wax, which it melts or blanches, we look upon the whiteness and softness produced in the wax, not as qualities in the sun, but [as] effects produced by powers in it: whereas, if rightly considered, these qualities of light and warmth, which are perceptions in me when I am warmed or enlightened by the sun, are no otherwise in the sun than the changes made in the wax, when it is blanched or melted, are in the sun. They are all of them equally powers in the sun, depending on its primary qualities, whereby it is able in the one case so to alter the bulk, figure, texture, or motion of some of the insensible parts of my eyes or hands as thereby to produce in me the idea of light or heat, and in the other it is able so to alter the bulk, figure, texture, or motion of the insensible parts of the wax as to make them fit to produce in me the distinct ideas of white and fluid.

The reason why the one are ordinarily taken for Real qualities, and the other only for bare Powers, seems to be because the ideas we have of distinct colours, sounds, &c., containing nothing at all in them of bulk, figure, or motion, we are not apt to think them the *effects* of these primary qualities which appear not to our senses to operate in their production, and with which they have not any apparent congruity or conceivable connexion. Hence it is that we are so forward to imagine that those ideas are the resemblances of something really existing in the objects themselves, since sensation discovers nothing of bulk, figure, or motion of parts in their production; nor can reason show *how* bodies by their bulk, figure, and motion, should produce in the mind the ideas of blue or yellow, &c. But, in the other case, in the operations of bodies changing the qualities one of another, we plainly discover that the quality produced hath commonly no resemblance with anything in the thing producing it; wherefore we look on it as a bare effect of Power. For though, receiving the idea of heat or light from the sun, we are apt to think it is a perception and resemblance of such a quality in the sun, yet when we see wax or a fair face receive change of colour from the sun, we cannot imagine *that* to be the perception or resemblance of anything in the sun; because we find not those different colours in the sun itself: for, our senses being able to observe a likeness or unlikeness of sensible qualities in two different external objects, we forwardly enough conclude the production of any sensible quality in any subject to be an effect of bare Power, and not the communication of any quality which was really in the *efficient*, when we find no such sensible quality in the thing that produced it. But our senses not being able to discover any *un*likeness between the idea produced in us and the quality of the object producing it, we are apt to imagine that our ideas are *resemblances* of something in the objects, and not the *effects* of certain powers placed in the modification of their primary qualities, with which primary qualities the ideas produced in us have no resemblance.

Secondary qualities twofold—To conclude: the former of [the before-mentioned qualities], I think, may be called Secondary qualities *immediately* perceivable; the latter, Secondary qualities *mediately* perceivable.

CHAPTER IX.

OF PERCEPTION.

Perception the first simple idea of reflection.—Perception, as it is the first faculty of the mind exercised about our ideas, so it is the first and simplest idea we have from Reflection; and is by some called Thinking in general. Though Thinking, in the propriety of the English tongue, signifies that sort of operation of the mind about its ideas wherein the mind is active; where it, with some degree of voluntary attention, considers anything: for in bare, naked Perception, the mind is, for the most part, only passive; and what it perceives it cannot avoid perceiving.

Is only when the mind receives the impression.—What Perception is, every one will know better by reflecting on what he does himself, when he sees, hears, feels, &c. or thinks, than by any discourse of mine. Whoever reflects on what passes in his own mind cannot miss it; and if he does not reflect, all the words in the world cannot make him have any notion of it.

This is certain, that whatever alterations are made in the body, if they reach not the mind, whatever impressions are made on the outward parts, if they are not taken notice of within, there is no Perception. Fire may burn our bodies with no other effect than it does a billet, unless the motion be continued to the brain, and there the sense of heat or idea of pain be produced in the mind, wherein consists actual Perception.

How often may a man observe in himself, that whilst his mind is intently employed in the contemplation of some objects, and curiously surveying some ideas that are there, it takes no notice of impressions of sounding bodies made upon the organ of hearing! A sufficient impulse there may be on the organ; but, it not reaching the observation of the mind, there follows no Perception: and though the motion that uses to produce the idea of sound be made in the ear, yet no sound is heard. Want of sensation in this case is not through any defect in the organ, or that the man's ears are less affected than at other times when he *does* hear; but that which uses to produce the idea, though conveyed in by the usual organ, not being taken notice of in the Understanding, and so imprinting no idea on the mind, there follows no *sensation.* So that, wherever there is sense or Perception, there some idea is actually produced, and present in the Understanding.

Therefore I doubt not but children, by the exercise of their senses about objects that affect them, receive *some* few ideas before they are born; as the unavoidable effects either of the bodies that environ them, or else of those wants or diseases they suffer; amongst which (if one may conjecture concerning things not very capable of examination) I think the ideas of hunger and warmth are two; which probably are some of the first that children have, and which they scarce ever part with again.

But though it be reasonable to imagine that children receive some ideas before they come into the world, yet these simple ideas are far from those innate principles which some contend for, and [which] we have rejected. These here mentioned, being the effects of sensation, are only from some affections of the body which happen to them [before birth], and so depend on something exterior to the mind; no otherwise differing in their manner of production from other ideas derived from sense, but only in the *precedency* of time: whereas those innate principles are supposed to be quite of another nature; not coming into the mind by any accidental alterations in, or operations on, the body; but, as it were, *original characters* impressed upon it in the very first moment of its being and constitution.

Which ideas first, is not evident.—How covetous the mind is to be furnished with all such ideas as have no pain accompanying them may be a little guessed by what is observable in children new born, who always turn their eyes to that part from whence the light comes, lay them how you please. But the ideas that are most familiar at first being various, according to the divers circumstances of children's first entertainment in the world, the *order* wherein the several ideas come at first into the mind is very various and uncertain also; neither is it material to know it.

Ideas of sensation often changed by the judgment.—We are farther to consider concerning Perception, that the ideas we receive by sensation are often in grown people altered by the Judgment, without our taking notice of it. When we set before our eyes a round globe of any uniform colour, v. g. gold, alabaster, or jet, it is certain that the idea thereby imprinted in our mind is of a flat circle variously shadowed, with several degrees of light and brightness coming to our eyes. But we having by use been accustomed to perceive what kind of appearance convex bodies are wont to make in us, what alterations are made in the reflections of light by the difference of the sensible figures of bodies, the Judgment presently, by an habitual custom, alters the *appearances* into their *causes*: so that, from that which truly is variety of shadow or colour collecting the figure, it makes it pass for a mark of figure, and frames to itself the Perception of a convex figure and an uniform colour; when the idea we receive from thence is only a plane variously coloured, as is evident in painting. To which purpose I shall here insert a problem of the learned and worthy Mr. Molineux: "Suppose a man born blind, and now adult, and taught by his touch to distinguish between a cube and a sphere of the same metal, and nighly of the same bigness, so as to tell, when he felt one and the other, which is the cube, which the sphere. Suppose, then, the cube and sphere placed on a table, and the blind man made to see; query, Whether by his sight, before he touched them, he could now distinguish and tell which is the globe, which the cube?" To which the acute and judicious proposer answers: "Not [so]. For though he has obtained the experience of how a globe, how a cube, affects his touch; yet he has not yet obtained the experience, that what affects his touch so or so must affect his sight so or so; or that a protuberant angle in the cube, that pressed his hand unequally, shall appear to his eye as it does in the cube." I agree that the blind man, at first sight, would not be able with certainty to say which was the globe, which the cube, whilst he only saw them; though he could unerringly name them by [aid of] his touch, and certainly distinguish them by the difference of their figures felt.

But this is not, I think, usual in any of our ideas but those received by sight; because sight, the most comprehensive of all our senses, conveying to our minds the ideas of light and colours, which are peculiar only to that sense, *and also* the far different ideas of space, figure, and motion, the several varieties whereof change the appearances of *its* proper objects, viz. light and colours; we bring ourselves by use to judge of the one by the other. This, in many cases, by a settled habit in things whereof we have frequent experience, is performed so constantly and so quick, that we take that for the perception of our Sensation which is an idea formed by our Judgment; so that one, viz. that of sensation, serves only to excite the other, and is scarce taken notice of itself; as a man who reads or hears with attention and understanding takes little notice of the characters or sounds, but of the ideas that are excited in him by them.

Nor need we wonder that this is done with so little notice, if we consider [*first*] how very quick the actions of the mind are: for as itself is thought to take up no *space*, to have no extension, so its actions seem to require no *time;* but many of them seem to be crowded into an instant. I speak this in comparison to the actions of the body. Any one may easily observe this in his own thoughts, who will take the pains to reflect on them. How, as it were in an instant, do our minds with one glance see all the parts of a demonstration, which may very well be called a long one, if we consider the time it will require to put it into words, and step by step show it [to] another! *Secondly*, we shall not be so much surprised that this is done in us with so little notice, if we consider how the facility which we get of doing things, by a custom of doing, makes them often pass in us without our notice. Habits, especially such as are begun very early, come at last to produce actions in us which often escape our observation. How frequently do we, in a day, cover our eyes with our eye-lids, without perceiving that we are at all in the dark! Men that by custom have got the use of a by-word do almost in every sentence pronounce sounds which, though taken notice of by others, they themselves neither hear nor observe. And therefore it is not so strange that our Mind should often change the idea of its Sensation into that of its Judgment, and make one serve only to excite the other, without our taking notice of it.

Perception puts the difference between animals and inferior beings.—This faculty of Perception seems to me to be that which puts the distinction betwixt the animal kingdom and the inferior parts of nature. For however vegetables have, many of them, some degrees of motion, and, upon the different application of other bodies to them do very briskly alter their figures and motions, and so have obtained the name of *sensitive* plants, from a motion which has some resemblance to that which in animals follows upon sensation; yet, I suppose, it is all bare mechanism, and no otherwise produced than the *turning* of a wild oat-beard by the insinuation of the particles of moisture, or the *shortening* of a rope by the affusion of water. All which is done without any sensation in the subject, or the having or receiving any ideas.

Perception, I believe, is in some degree in all sorts of animals; though in some, possibly, the avenues provided by nature for the reception of sensations are so few, and the perception they are received with so obscure and dull, that it comes extremely short of the quickness and variety of sensations which are in other animals: but yet it is sufficient for, and wisely adapted to, the state and condition of that sort of animals who are thus made; so that the wisdom and goodness of the Maker plainly appear in all the parts of this stupendous fabric, and all the several degrees and ranks of creatures in it.

We may, I think, from the make of an oyster or cockle reasonably conclude that it has not so many, nor so quick, senses as a man [and] several other animals; nor, if it had, would it, in that state and incapacity of transferring itself from one place to another, be bettered by them. What good would sight and hearing do to a creature that cannot move itself to or from the objects wherein at a distance it perceives good or evil? And would not quickness of sensation be an inconvenience to an animal that must lie still where chance has once placed it; and there receive the afflux of colder or warmer, clean or foul water, as it happens to come to it?

But yet I cannot but think there is some small dull perception whereby they are distinguished from perfect insensibility. And that this may be so, we have plain instances even in mankind itself. Take one in whom decrepid old age has blotted out the memory of his past knowledge, and clearly wiped out the ideas his mind was formerly stored with; and has, by destroying his sight, hearing, and smell quite, and his taste to a great degree, stopped up almost all the passages for new ones to enter; or if there be some of the inlets yet half open, the impressions made are scarce perceived, or not at all retained. How far such a one (notwithstanding all that is boasted of innate principles) is in his knowledge and intellectual faculties above the condition of a cockle or an oyster I leave to be considered. And if a man had passed sixty years in such a state, as it is possible he might, as well as three days, I wonder what difference there would have been, in any intellectual perfections, between him and the lowest degree of animals.

Perception the inlet of knowledge.—Perception, then, being the first step and degree towards Knowledge, and the inlet of all the materials of it, the fewer senses any man, as well as any other creature, hath, and the fewer and duller the impressions are that are made by them, and the duller the faculties are that are employed about them, the more remote are they from that Knowledge which is to be found in some men. But this, being in great variety of degrees (as may be perceived amongst men) cannot certainly be discovered in the several species of animals, much less in their particular individuals. It suffices me only to have remarked here that Perception is the First Operation of all our intellectual Faculties, and the inlet of all Knowledge into our minds. And I imagine that it is Perception, in the lowest degree of it, which puts the boundaries between animals and the inferior ranks of creatures. But this I mention only as my conjecture, it being indifferent to the matter in hand which way the learned shall determine of it.

CHAPTER X.

OF RETENTION.

Contemplation.—The next Faculty of the mind, whereby it makes a farther progress towards Knowledge, is that which I call Retention, or the keeping of those simple ideas which from Sensation or Reflection it hath received. This is done [in] two ways. *First*, by keeping the idea which is brought into it for some time actually in view, which is called Contemplation.

Memory.—[*Secondly*,] The other way of Retention is the power to revive again in our minds those ideas which after imprinting have disappeared, or have been, as it were, laid aside out of sight; and thus we do, when we conceive heat or light, yellow or sweet, the object being removed. This is Memory, which is, as it were, the store-house of our ideas. For the narrow mind of man not being capable of having many ideas under view and consideration at once, it was necessary to have a repository to lay up those ideas, which at another time it might have use of. But our ideas being nothing but *actual perceptions* in the mind, which cease to be anything when there is no perception of them, this laying up of our ideas in the repository of the Memory signifies no more than this, that the mind has a power, in many cases, to revive perceptions which it has once had, with this additional perception annexed to them that it has had them before. And in this sense it is that our ideas are said to be *in* our memories, when indeed they are actually nowhere, but only there is an ability in the mind, when it will, to revive them again, and, as it were, paint them anew on itself, though some with more, some with less difficulty; some more lively, and others more obscurely. And thus it is by the assistance of this faculty that we are said to have all those ideas in our Understandings, which though we do not actually contemplate, yet we can bring in sight and make appear again and be the objects of our thoughts, without the help of those sensible qualities which first imprinted them there.

Attention, repetition, pleasure, and pain, fix ideas.—Attention and Repetition help much to the fixing any ideas in the Memory: but those which naturally at first make the deepest and most lasting impression are those which are accompanied with Pleasure or Pain. The great business of the senses being to make us take notice of what hurts or advantages the body, it is wisely ordered by nature (as has been shown) that Pain should accompany the reception of several ideas; which, supplying the place of consideration and reasoning in children, and acting quicker than consideration in grown men, makes both young and old avoid painful objects with that haste which is necessary for their preservation; and in both, settles in the memory a caution for the future.

Ideas fade in the memory.—Concerning the several degrees of lasting wherewith ideas are imprinted on the Memory, we may observe, that some of them have been produced in the Understanding by an object affecting the senses once only, and no more than once: others, that have more than once offered themselves to the senses, have yet been little taken notice of; the mind, either heedless as in children, or otherwise employed as in men, intent only on one thing, not setting the stamp deep into itself: and in some, where they are set on with care and repeated impressions, either through the temper of the body or some other default, the Memory is very weak. In all these cases, ideas in the mind quickly fade, and often vanish quite out of the Understanding; leaving no more footsteps or remaining characters of themselves, than shadows do flying over fields of corn; and the Mind is as void of them, as if they never had been there.

Thus many of those ideas which were produced in the minds of children in the beginning of their sensation (some of which perhaps, as of some pleasures and pains, were before they were born, and others in their infancy) if in the future course of [life] they are not repeated again, are quite lost, without the least glimpse remaining of them. This may be observed in those who by some mischance have lost their sight when they were very young, in whom the ideas of colours, having been but slightly taken notice of, and ceasing to be repeated, do quite wear out; so that, some years after, there is no more notion or Memory of colours left in their minds, than in those of people born blind. The Memory of some men, it is true, is very tenacious, even to a miracle: but yet there seems to be a constant decay of all our ideas, even of those which are struck deepest, and in minds the most retentive; so that, if they be not sometimes renewed by repeated exercise of the senses, or reflection on those kinds of objects which at first occasioned them, the print wears out, and at last there remains nothing to be seen. Thus the ideas, as well as children, of our youth often die before us; and our Minds represent to us those tombs to which we are approaching; where though the brass and marble remain, yet the inscriptions are effaced by time, and the imagery moulders away. The pictures drawn in our minds are laid in fading colours; and if not sometimes refreshed vanish and disappear. How much the constitution of our bodies, and the make of our animal spirits, are concerned in this; and whether the temper of the brain makes this difference, that in some it retains the characters drawn on it like marble, in others like freestone, and in others little better than sand, I shall not here inquire: though it may seem probable that the constitution of the body does sometimes influence the Memory; since we oftentimes find a disease quite strip the mind of all its ideas, and the flames of a fever in a few days calcine all those images to dust and confusion, which seemed to be as lasting as if graved in marble.

Constantly repeated ideas can scarce be lost.—But concerning the ideas themselves it is easy to remark, that those that are oftenest refreshed, (amongst which are those that are conveyed into the mind by more ways than one), by a frequent return of the objects or actions that produce them, fix themselves best in the Memory, and remain clearest and longest there: and therefore those which are of the Original Qualities of bodies, viz. Solidity, Extension, Figure, Motion, and Rest; and those that almost constantly affect our bodies, as Heat and Cold; and those which are the affections of all kinds of Beings, as Existence, Duration, and Number, which almost every object that affects our senses, every thought which employs our minds, bring[s] along with [it]: these, I say, and the like ideas, are seldom quite lost whilst the mind retains any ideas at all.

In remembering, the mind is often active.—In this Secondary Perception, as I may so call it, or viewing again the ideas that are lodged in the Memory, the mind is oftentimes more than barely passive; the appearance of those dormant pictures depending sometimes on the Will. The Mind very often sets itself on work in search of some hidden idea, and turns, as it were, the eye of the Soul upon it; though sometimes, too, they start up in our minds of their own accord, and offer themselves to the Understanding; and very often are roused and tumbled out of their dark cells into open daylight by turbulent and tempestuous passions: our affections bringing ideas to our memory which had otherwise lain quiet and unregarded. This farther is to be observed concerning ideas lodged in the Memory, and upon occasion revived by the mind—that they are not only (as the word "revive" imports) none of them new ones; but also that the mind takes notice of them as of a *former* impression, and renews its acquaintance with them as with ideas it had known before. So that though ideas formerly imprinted are not all constantly in view, yet in remembrance they are constantly known to be such as have been formerly imprinted, i. e. in view, and taken notice of before by the Understanding.

Two defects in the memory, oblivion and slowness.—Memory in an intellectual creature is necessary in the next degree to Perception. It is of so great moment, that where it is wanting, all the rest of our faculties are in a great measure useless; and we in our thoughts, reasonings, and Knowledge could not proceed beyond present objects, were it not for the assistance of our memories, wherein there may be two defects.

First, that it loses the idea quite; and so far it produces perfect ignorance. For since we can know nothing farther than we have the idea of it, when that is gone we are in perfect ignorance.

Secondly, that it moves slowly, and retrieves not the ideas that it has, and [that] are laid up in store, quick enough to serve the mind upon occasion. This, if it be to a great degree, is stupidity; and he who through this default in his memory has not the ideas that are really preserved there ready at hand, when need and occasion calls for them, were almost as [well] without them quite, since they serve him to little purpose. The dull man, who loses the opportunity whilst he is seeking in his mind for those ideas that should serve his turn, is not much more happy in his knowledge than one that is perfectly ignorant. It is the business therefore of the Memory to furnish to the mind those dormant ideas which it has present occasion for. In the having them ready at hand on all occasions consists that which we call Invention, Fancy, and Quickness of parts.

These defects we may observe in the memory of one man compared with another. There is another defect which we may conceive to be in the Memory of man in general, compared with some superior created intellectual Beings, which in this faculty may so far excel man, that they may have constantly in view the *whole* sense of all their former actions, wherein no one of the thoughts they have ever had may slip out of their sight.

The omniscience of God who knows all things, past, present, and to come, and to whom the thoughts of men's hearts always lie open, may satisfy us of the possibility of this. For who can doubt but God may communicate to those glorious spirits, His immediate attendants, any of His perfections in what proportion He pleases, as far as created finite beings can be capable? It is reported of that prodigy of parts, M. Pascal, that, till the decay of his health had impaired his memory, he forgót nothing of what he had done, read, or thought in any part of his rational age. This is a privilege so little known to most men, that it seems almost incredible to those who, after the ordinary way, measure all others by themselves; but yet, when considered, may help us to enlarge our thoughts towards greater perfection of it in superior ranks of spirits. For this of M. Pascal was still with the narrowness that human minds are confined to here,—of having great variety of ideas only by succession, not all at once; whereas the several degrees of angels may probably have larger views, and some of them [may] be endowed with capacities able to retain together, and constantly set before them, as in one picture, all their past knowledge at once. This, we may conceive, would be no small advantage to the knowledge of a thinking man, if all his past thoughts and reasonings could be always *present* to him; and therefore we may suppose it one of those ways wherein the Knowledge of Separate Spirits may exceedingly surpass our's.

Brutes have memory.—This Faculty, of laying up and retaining the ideas that are brought into the mind, several other animals seem to have to a great degree, as well as man. For, birds' learning of tunes, and the endeavours one may observe in them to hit the notes right, put it past doubt with me that they have *perception*, and retain ideas in their memories, and use them for patterns. For it seems to me impossible that they should endeavour to conform their voices to notes (as it is plain they do) of which they had no ideas. For though I should grant sound may *mechanically* cause a certain motion of the animal spirits in the brains of those birds whilst the tune is actually playing, and that motion may be continued on to the muscles of the wings, and so the bird *mechanically* be driven away by certain noises, because this may tend to the bird's preservation; yet that can never be supposed a reason why it should cause mechanically (whilst the tune is playing, much less after it has ceased) such a motion in the organs of the bird's voice as should conform it to the notes of a foreign sound, which *imitation* can be of no use to the bird's preservation. But, which is more, it cannot with any appearance of reason be supposed (much less proved) that birds without Sense and Memory can approach their notes, nearer and nearer by degrees, to a tune played yesterday; which, if they have no idea of [it] in their memory, is nowhere; nor can be a pattern for them to imitate, or which any repeated essays can bring them nearer to; since there is no reason why the sound of a pipe should leave traces in their brains, which not at first, but by their after-endeavours, should produce the like sounds; and *why* the sounds they make themselves should not make traces which they should follow, as well as those of the pipe, is impossible [for me] to conceive.

CHAPTER XI.

OF DISCERNING, AND OTHER OPERATIONS OF THE MIND.

No knowledge without discerning.—Another Faculty we may take notice of in our minds is that of Discerning, and distinguishing between the several ideas it has. It is not enough to have a confused perception of something in general: unless the mind had a distinct perception of different objects and their qualities, it would be capable of very little Knowledge; though the bodies that affect us were as busy about us as they are now, and the mind were continually employed in Thinking. On this faculty of distinguishing one thing from another, depend the evidence and certainty of several even very general propositions, which have passed for innate truths; because men, overlooking the true cause why those propositions find universal assent, impute it wholly to native uniform impressions; whereas it in truth depends upon this clear Discerning faculty of the mind, whereby it perceives two ideas to be the same or different.

The difference of wit and judgment.—How much the imperfection of accurately discriminating ideas, one from another, lies either in [1.] the dulness or faults of the organs of sense, or [2.] want of acuteness, exercise, or attention in the Understanding, or [3.] hastiness and precipitancy natural to some tempers, I will not here examine: it suffices to take notice, that this is one of the operations that the mind may reflect on and observe in itself. It is of that consequence to its other Knowledge, that so far as this faculty is in itself dull, or not rightly made use of for the *distinguishing* one thing from another, so far our notions are confused, and our Reason and Judgment disturbed or misled. If in having our ideas in the memory ready at hand consists *quickness* of parts; in this of having them unconfused, and being able nicely to distinguish one thing from another where there is but the least difference, consists in a great measure the *exactness* of Judgment and *clearness* of Reason which is to be observed in one man above another. And hence, perhaps, may be given some reason of that common observation,—that men who have a great deal of Wit and prompt Memories have not always the clearest Judgment or deepest Reason. For, Wit lying most in the assemblage of ideas, and putting those together with quickness and variety wherein can be found any *resemblance* or congruity, thereby to make up pleasant pictures and agreeable visions in the fancy; Judgment, on the contrary, lies quite on the other side, in separating carefully one from another ideas wherein can be found the least *difference;* thereby to avoid being misled by similitude and by affinity, to take one thing for another. This is a way of proceeding quite contrary to Metaphor and Allusion, wherein for the most part lie that entertainment and pleasantry of Wit which strike so lively on the fancy, and [are] therefore so acceptable to all people; because its beauty appears at first sight, and there is required no labour of thought to examine what truth or reason there is in it. The mind, without looking any farther, rests satisfied with the agreeableness of the picture, and the gaiety of the fancy; and it is a kind of an affront to go about to examine it by the severe rules of truth and good reason: whereby it appears that it consists in something that is not perfectly conformable to them.

Clearness alone hinders confusion.—To the well distinguishing our ideas it chiefly contributes that they be *clear* and determinate; and where they are so, it will not breed any confusion or mistake about them; though the senses should (as sometimes they do) convey them from the same object differently on different occasions, and so seem to err. For though a man in a fever should from sugar have a bitter taste, which at another time would produce a sweet one, yet the idea of bitter in that man's mind would be as *clear* and distinct from the idea of sweet as if he had tasted only gall. Nor does it make any more confusion between the two ideas of sweet and bitter, that the same sort of body produces at one time one and at another time another idea by the taste, than it makes a confusion in two ideas of white and sweet, or white and round, that the same piece of sugar produces them both in the mind at the same time. And the ideas of orange-colour and azure that are produced in the mind by the same parcel of the infusion of *lignum nephriticum*, are no less distinct ideas than those of the same colours taken from two very different bodies.

Comparing.—The Comparing them one with another, in respect of extent, degrees, time, place, or any other circumstances, is another operation of the mind about its ideas; and is that upon which depends all that large tribe of ideas comprehended under Relations; which of how vast an extent it is, I shall have occasion to consider hereafter.

Brutes compare but imperfectly.—How far brutes partake in this faculty is not easy to determine. I imagine they have it not in any great degree: for though they probably have several ideas distinct enough, yet it seems to me to be the prerogative of Human Understanding, when it has sufficiently distinguished any ideas so as to perceive them to be perfectly different, and so consequently two, to consider in what circumstances they are capable to be compared. And therefore, I think, beasts compare not their ideas farther than some sensible circumstances annexed to the objects themselves. The other power of Comparing which may be observed in men, belonging to general ideas, and useful only to abstract reasonings, we may probably conjecture beasts have not.

Compounding.—The next operation we may observe in the mind about its ideas is Composition: whereby it puts together several of those simple ones it has received from Sensation and Reflection, and combines them in to Complex ones. Under this of Composition may be reckoned also that of Enlarging; wherein though the composition does not so much appear as in more complex ones, yet it is nevertheless a putting several ideas together, though of the same kind. Thus, by adding several units together, we make the idea of a dozen, and putting together the repeated ideas of several perches, we frame that of a furlong.

Brutes compound but little.—In this also I suppose brutes come far short of men. For though they take in and retain together several combinations of simple ideas (as possibly the shape, smell, and voice of his master make up the complex idea a dog has of him, or rather are so many *distinct marks* whereby he knows him); yet I do not think they do of themselves ever *compound* them and make complex ideas. And perhaps even where we think they have complex ideas, it is only *one* simple one that directs them in the knowledge of several things, which possibly they distinguish less by their sight than we imagine. Those animals which have a numerous brood of young ones at once appear not to have any knowledge of their *number;* for though they are mightily concerned for *any one* of their young that [is] taken from them whilst they are in sight or hearing, yet if one or two of them be stolen from them in their absence or without noise, they appear not to miss them, nor to have any sense that their number is lessened.

Naming.—When children have by repeated sensations got ideas fixed in their memories, they begin by degrees to learn the use of Signs. And when they have got the skill to apply the organs of speech to the framing of articulate sounds, they begin to make use of Words to signify their ideas to others. These verbal signs they sometimes borrow from others; and sometimes make themselves, as one may observe among the new and unusual names children often give to things in their first use of Language.

Abstracting.—The use of Words, then, being to stand as outward marks of our internal ideas, and those ideas being taken from particular things, if every particular idea that we take in should have a distinct name, names must be endless. To prevent this, the mind makes the particular ideas received from particular objects to become *general;* which is done by considering them as they are in the

The defect in [idiots] seems to proceed from want of *quickness*, *activity*, and motion in the intellectual faculties; whereby they are deprived of Reason: whereas madmen, on the other side, seem to suffer by the other extreme. For they do not appear to have lost the faculty of reasoning: but, having joined together some ideas very wrongly, they *mistake* them for truths; and they err as men do that argue right from wrong principles. For, by the violence of their imaginations having taken their fancies for realities, they make right deductions from them. Thus, you shall find a distracted man, fancying himself a king, with a right inference require suitable attendance, respect, and obedience: others who have thought themselves made of glass have used the caution necessary to preserve such brittle bodies. Hence, a man who is very sober, and of a right understanding in all other things, may in one particular be frantic; if either by any sudden very strong impression, or long fixing his fancy upon one sort of thoughts, incoherent ideas have been cemented together so powerfully as to remain united. But there are *degrees* of madness, as of folly: the disorderly jumbling [of] ideas together is in some more, [in] some less. In short, herein seems to lie the difference between idiots and madmen, that madmen put wrong ideas together, and so make wrong propositions, but argue and reason right from them; but idiots make very few or no propositions, and reason scarce at all.

Method.—These, I think, are the first Faculties and Operations of the mind which it makes use of in understanding. And though they are exercised about all its ideas in general, yet the instances I have hitherto given have been chiefly in simple ideas: and I have subjoined the explication of these faculties of the mind to that of Simple ideas, before I come to what I have to say concerning Complex ones, for these following reasons:

First, Because, several of these faculties being exercised at first principally about simple ideas, we might, by following nature in its ordinary method, trace and discover them in their rise, progress, and gradual improvement.

Secondly, Because, observing the faculties of the mind, how they operate about Simple ideas, which are usually in most men's minds much more clear, precise, and distinct than Complex ones, we may the better examine and learn how the mind abstracts, denominates, compares, and exercises its other operations about those which are Complex, wherein we are much more liable to mistake.

Thirdly, Because these very operations of the mind about ideas received from Sensation are themselves, when reflected on, another set of ideas, derived from that other source of our Knowledge which I call Reflection; and [are] therefore fit to be considered in this place *after* the simple ideas of sensation.

Dark Room.—[Thus] external and internal Sensation are the only passages of Knowledge to the Understanding. These alone are the windows whereby light is let into this dark room. For the Understanding is not much unlike a closet wholly shut from light; with only some little opening left, to let in external visible resemblances, or ideas of things [from] without. Would the pictures coming into such a dark room but stay there, and lie so orderly as to be found upon occasion, it would very much resemble the Understanding of Man, in reference to all objects of sight, and the ideas of them.

◆

CHAPTER XII.

OF COMPLEX IDEAS.

Made by the mind out of simple ones.—We have hitherto considered those Ideas in the reception whereof the mind is only passive; which are those Simple ones received from Sensation and Reflection before mentioned; whereof the mind cannot make one to itself, or have any idea which does not wholly consist of them. But as the mind is wholly passive in the reception of all its simple ideas, so it exerts several acts of its own, whereby out of its simple ideas, as the materials and foundations of the rest, the others are framed. The acts of the mind wherein it exerts its power over its simple ideas are chiefly these three: *First*, Combining several simple ideas into one compound one; and thus all Complex ideas are made. *Secondly*, Bringing two ideas, whether simple or complex, together, and setting them by one another, so as to take a view of them at once, without uniting them into one; by which way it gets all its ideas of Relations. *Thirdly*, Separating them from all other ideas that accompany them in their real existence; this is called Abstraction: and thus all its *ge-*

neral ideas are made. This shows Man's power and its way of operation to be much the same in the *material* [as in the] *intellectual* world. For, the materials in both being such as he has no power over, either to make or destroy, all that Man can do is either to unite them together, or to set them by one another, or wholly separate them. I shall here begin with the first of these, in the consideration of Complex Ideas; and come to the other two in their due places. As Simple ideas are observed to exist in several combinations united together, so the mind has a power to consider several of them united together as *one* idea; and *that* not only as they are united in external objects, but as itself has joined them. Ideas thus made up of several simple ones put together I call Complex; such as are beauty, gratitude, a man, an army, the universe; which, though complicated of various simple ideas, or complex ideas made up of simple ones, yet are, when the mind pleases, considered, each by itself, as one entire thing, and signified by one name.

Made voluntarily.—In this faculty of repeating and joining together its ideas, the mind has great power in varying and multiplying the objects of its thoughts, infinitely beyond what Sensation or Reflection furnishes it with; but all this still confined to those simple ideas which it received from those two sources, and which are the ultimate materials of all its compositions. For, simple ideas are all from things themselves; and of these the mind can have no *more* or *other* than what are suggested to it. It can have no other ideas of *sensible qualities* than what come from without by the senses;

nor any ideas of other kind of *operations of a thinking substance* than what it finds in itself; but when it has once got these simple ideas, it is not confined barely to observation, and what offers itself from without; it can by its own power put together those ideas it has, and make new complex ones which it never received so united.

Are either modes, substances, or relations.—Complex ideas, however compounded and decompounded, though their number be infinite, and the variety endless wherewith they fill and entertain the thoughts of men, yet I think may be all reduced under these three heads—(1) Modes. (2) Substances. (3) Relations.*

Modes.—*First*, Modes, I call such Complex ideas which, however compounded, contain not in them the supposition of subsisting by themselves, but are considered as dependences on, or affections of Substances; such are the ideas signified by the words triangle, gratitude, murder, &c. And in this I use the word "mode" in somewhat a different sense from its ordinary signification; it being unavoidable, in discourses differing from the ordinary received notions, either to make new words, or to use old words in somewhat a new signification: the latter whereof, in our present case, is perhaps the more tolerable of the two.

Simple and mixed modes.—Of these Modes there are two sorts which deserve distinct consideration. *First*, There are some which are only variations, or different combinations of the same simple idea, without the mixture of any other, as a dozen, or score; which are nothing but the ideas of so many distinct units added together: and these I call Simple Modes; as being contained within the bounds of one Simple idea. *Secondly,* There are others compounded of simple ideas of several kinds, put together to make one complex one; v. g. beauty, consisting of a certain composition of colour and figure, causing delight in the beholder; theft, which, being the concealed change of the possession of any thing without the consent of the proprietor, contains a combination of several ideas of several kinds: and these I call Mixed Modes.

---

* These three are commonly called LOCKE's 'Categories.'

Substances single or collective.—Secondly, The ideas of Substances are such combinations of Simple ideas as are taken to represent distinct particular things subsisting by themselves, in which the supposed or confused idea of Substance, such as it is, is always the first and chief. Thus, if to Substance be joined the simple idea of a certain dull whitish colour, with certain degrees of weight, hardness, ductility, and fusibility, we have the idea of lead; and a combination of the ideas of a certain sort of figure, with the powers of motion, thought, and reasoning, joined to substance, make the ordinary idea of a Man. Now, of substances also there are two *sorts* of ideas; one of Single Substances, as they exist separately, as of a man, or a sheep; the other of several of those put together, as an army of men, or flock of sheep; which Collective ideas of several Substances thus put together, are as much, each of them, one single idea as that of a man, or unit.

Relation.—Thirdly, The last sort of Complex ideas is that [which] we call Relation; which consists in the consideration and Comparing one idea with another. Of these several kinds we shall treat in their order.

The most abstruse ideas from the two sources.—If we trace the progress of our mind, and with attention observe how it repeats, adds together, and unites its simple ideas received from Sensation or Reflection, it will lead us farther than at first perhaps we should have imagined. And I believe we shall find, if we warily observe the originals of our notions, that even *the most abstruse* ideas, how remote soever they may seem from *sense*, or from any operation of our own *minds*, are yet only such as the Understanding frames to itself, by repeating and joining together ideas that it had either from objects of sense, or from its own operations about them; so that those *even large and abstract* ideas are derived from Sensation or Reflection; being no other than what the mind, by the ordinary use of its own faculties, employed about ideas received from objects of sense, or from the operations it observes in itself about them, may (and does) attain. This I shall endeavour to show in the ideas we have of Space, Time, and Infinity; and some few others that seem *the most remote* from those originals.

◆

CHAPTER XIII.

OF THE SIMPLE MODES OF SPACE.

Simple Modes.—Though I have often mentioned Simple ideas, which are truly the materials of all our Knowledge; yet, having treated of them rather in the way [by which] they come into the mind than as distinguished from others more Compounded, it will not be perhaps amiss to take a view of some of them again under this consideration, and examine those different modifications of the same idea which the mind either finds in things existing, or is able to make within itself, without the help of any extrinsic object, or any foreign suggestion.

These modifications of any one simple idea (which, as has been said, I call Simple Modes) are as perfectly different and distinct ideas in the mind as those of the greatest distance or contrariety; for the idea of *two* is as distinct from that of *one* as blueness from heat, or either of them from any number; and yet it is made up only of that simple idea of a unit repeated; and repetitions of this kind joined together make those distinct Simple Modes of a dozen, a gross, a million.

Idea of Space.—I shall begin with the simple idea of Space. I have showed (Chap. IV.), that we get the idea of Space both by our *sight* and *touch:* which I think is so evident, that it would be as needless to prove that men perceive by their sight a distance between bodies of different colours, or between the parts of the same body, as that they see colours themselves; nor is it less obvious that they can do so in the dark, by feeling and touch.

Space and Extension.—This Space, considered barely in length between any two beings, without considering anything else between them, is called Distance; if considered in length, breadth, and thickness, it may be called Capacity: the term Extension is usually applied to it in whatsoever manner considered.

Immensity.—Each different Distance is a different modification of Space; and each *idea* of any different distance or space is a Simple Mode of this idea. Men, for the use and by the custom of measuring, settle in their minds the ideas of certain stated lengths, such as are an inch, foot, yard, fathom, mile, diameter of the earth, &c., which are so many distinct ideas made up only of Space. When any such stated lengths or measures of space are made familiar to men's thoughts, they can in their minds repeat them as often as they will, without mixing or joining to them the idea of Body or any thing else; and frame to themselves the idea of long, square, or cubic feet, yards, or fathoms, here amongst the bodies of the Universe; or else beyond the utmost bounds of all bodies: and, by adding these still one to another, [can] enlarge their ideas of Space as much as they please. This power of repeating or doubling any idea we have of any distance, and adding it to the former as often as we will, without being ever able to come to any stop, let us enlarge it as much as we will, is that which gives us the idea of Immensity.

Figure.—There is another modification of this idea, which is nothing but the relation which the parts of the termination of Extension or *circumscribed* Space have amongst themselves. This the touch discovers in sensible bodies, whose extremities come within our reach; and the eye takes both from bodies and colours, whose boundaries are within its view: where, observing how the extremities terminate, either in straight lines which meet at discernible angles, or in crooked lines wherein no angles can be perceived, by considering these as they relate to one another, in all parts of the extremities of any body or space, it has that idea we call Figure, which affords to the mind infinite variety. For, besides the vast number of different Figures that do really exist in the coherent masses of matter, the stock that the mind has in its power, by varying the idea of Space, and thereby making still new compositions, by repeating its own ideas and joining them as it pleases, is perfectly inexhaustible; and so it can multiply Figures *in infinitum.*

For, the mind having a power to repeat the idea of any length directly stretched out, and join it to another in the same direction (which is, to double the length of that straight line), or else join it to another with what inclination it thinks fit, and so make what sort of angle it pleases; and being able also to shorten any lines it imagines, by taking from it one-half, or one-fourth, or what part it pleases, without being able to come to an end of any such divisions, it can make an angle of any [measure]: so also the lines that are its sides, of what length it pleases; which joining again to other lines of different lengths and at different angles, till it has wholly enclosed any space, it is evident that it can multiply Figures both in their shape and capacity *in infinitum;* all which are but so many different Simple Modes of Space.

The same that it can do with straight lines, it can also do with crooked, or crooked and straight together; and the same it can do in lines, it can also [do] in superficies.

Place.—Another idea coming under this head is that [which] we call Place. As in simple Space we consider the relation of *distance* between any two bodies or points, so in our idea of Place we consider [*first*] the relation of distance between any thing and any *two or more* points, which are considered as keeping the same distance one with another, and so considered as at rest: for, when we find any thing at the same distance now [at] which it was yesterday from any two or more points, which have not since changed their distance *one with another*, and with which we then compared it, we say it has kept the *same* place; but if it has sensibly altered its distance with either of those points, we say it has *changed* its place; though, vulgarly speaking in the common notion of place, we do not always exactly observe the distance from precise points, but from large portions of sensible objects to which we consider the thing placed to bear relation, and its distance from which we have some reason to observe.

Thus a company of chess-men standing on the same squares of the chess-board where we left them, we say they are all in the *same place*, or unmoved—though perhaps the chess-board has been in the mean time carried out of one room into another: because we compared them only to the parts of the chess-board which keep the same distance one with another. The chess-board, we also say, is in the *same place*, if it remain in the same part of the cabin, though perhaps the ship in which it is sails all the while; and the ship is said to be in the *same place*, supposing it kept the same distance with the parts of the neighbouring land; though perhaps the earth has turned round, and so both chess-men and board and ship have, every one, changed place, in respect of remoter bodies, which have kept the same distance *one with another*. But yet the distance from certain parts of the board being that which determines the place of the chess-men, and the distance from the fixed parts of the cabin (with which we made the *comparison*) being that which determined the *place* of the chess-board, and the fixed parts of the earth that by which we determined the place of the ship; these things may be said properly to be in the same place *in those respects;* though, their distance from some other things, which in this matter we did not consider, being varied, they have undoubtedly changed place in *that* respect: and we ourselves shall think so, when we have occasion to compare them with those others.

But this modification of Distance, [which] we call Place, being made by men for their common use, that by it they might be able to design the particular position of things, *where* they had occasion for such designation; men consider and determine of this place by reference to those adjacent things which best served their present purpose, without considering other things which to answer another purpose would better determine the place of the same thing. Thus in the chess-board, the use of the designation of the place of each chess-man being determined only within that chequered piece of wood, it would cross that purpose to measure it by any thing else: but when these very chess-men are put in a bag, if any one should ask *where* the Black King is, it would be proper to determine the place by *the parts of the room*, and not by the chess-board; there being another *use* of designing the place it is now in, than when in play it was on the chess-board; and so [this place] must be determined by other bodies. So, if any one should ask *in what* 'place' are the verses which report the story of Nisus and Euryalus, it would be very improper to determine this place by saying, they [are] in such a part of the earth, or in Bodley's Library; but the right designation of the place would be—the part of Virgil's Works.

That our idea of Place is nothing else but such a *relative* position of any thing as I have before mentioned I think is plain, and will be easily admitted, when we consider that we can have no idea of the *place* of the Universe, though we can [have] of all the parts of it: because beyond that we have not the idea of any fixed, distinct, particular *beings*, in reference to which we can imagine it to have any relation of distance; but all beyond it is one uniform Space or Expansion, wherein the mind finds no variety, no marks. For, to say that the world is *somewhere* means no more than that it does exist; this, though a phrase borrowed from *place*, signifying only its existence, not location: and when one can find out and frame in his mind clearly and distinctly the *place* of the Universe, he will be able to tell us whether it moves or stands still in the undistinguishable *inane* of infinite space: though it be true that the word 'place' has sometimes a more confused sense, and stands [*secondly*] for—'that space which any body takes up;' and *so* the Universe is in a *place*. The idea, therefore, of Place we have by the same means whereby we get the idea of Space (whereof this is but a particular limited consideration), viz. by our *sight* and *touch;* by either of which we receive into our minds the ideas of Extension or Distance.

CHAPTER XIV.

OF DURATION, AND ITS SIMPLE MODES.

Duration is fleeting extension.—There is another sort of Distance or *length*, the idea whereof we get not from the permanent parts of Space, but from the fleeting and perpetually perishing parts of Succession. This we call Duration; the Simple Modes whereof are any different lengths of it [of which] we have distinct ideas; as 'hours,' 'days,' 'years,' &c., 'time,' and 'eternity.'

Its idea from reflection on the train of our ideas.—The answer of a great man to one who asked what Time was, '*Si non rogas intelligo*'* (which amounts to this—'The more I set myself to think of it, the less I understand it')—might perhaps persuade one that Time, which reveals all other things, is itself not to be discovered. Duration, Time, and Eternity are not without reason thought to have something very abstruse in their nature. But *however remote* these may seem from our comprehension, yet if we trace them right to their originals, I doubt not but one of those sources of all our Knowledge, viz. Sensation and Reflection, will be able to furnish us with these ideas as clear and distinct as many others which are thought much less obscure; and we shall find that the idea of Eternity itself is derived from the same common original with the rest of our ideas.

---

* The allusion here seems to be to Augustine, Bishop of Hippo, who lived in the latter part of the fourth and beginning of the fifth century of our era; though Locke has not quoted very accurately in the place, and Augustine's title to the designation of 'a great man' may be deemed more than questionable by many. The exact words of Augustine are—"Quid ergo est tempus? Si nemo ex me quærat, scio; si quærenti explicare velim, nescio."—Confess^{m}., Lib. XI., cap. XIV., sec. 2.—ED.

To understand Time and Eternity aright, we ought with attention to consider *what* idea we have of Duration, and *how* we came by it. It is evident to any one who will but observe what passes in his own mind, that there is *a train* of ideas which constantly *succeed* one another in his Understanding, as long as he is awake. Reflection on these *appearances* of several ideas, one after another, in our minds is that which furnishes us with the idea of Succession; and the *distance* between any parts of that succession, or between the appearance of any two ideas in our minds, is that we call Duration. For whilst we are thinking, or whilst we receive successively several ideas in our minds, we know that we do exist; and so we call the existence, or the continuation of the existence, of ourselves or any thing else, commensurate to the succession of any ideas in our minds, the *duration* of ourselves, or [of] any such other thing coexisting with our thinking.

That we have our notion of Succession and Duration from this original, viz., from Reflection on the train of ideas which we find to appear one after another in our own minds, seems plain to me, in that we have no perception of duration but by *considering the train* of ideas that take their turns in our Understandings. When that succession of ideas ceases, our perception of duration ceases with it; which every one clearly [experiences] in himself whilst he sleeps soundly, whether [for] an hour, or a day, a month, or a year; of which duration of things, whilst he sleeps or thinks not, he has no perception at all, but it is quite lost to him; and the moment wherein he leaves off to think, till the moment he begins to think again, seems to him to have no distance. And so I doubt not it would be to a waking man, if it were possible for him to keep *only one* idea in his mind, without variation and the succession of others; and we see that one who fixes his thoughts very intently on one thing, so as to take but little notice of the succession of ideas that pass in his mind whilst he is taken up with that earnest contemplation, lets slip out of his account a good part of that duration, and thinks *that* time shorter than it is. But if sleep commonly *unites* the distant parts of duration, it is because during that time we have no succession of ideas in our minds. For if a man during his sleep dreams, and variet[ies] of ideas make themselves perceptible in his mind one after another, he has then, during such dreaming, a sense of duration, and of the length of it.

The idea of Duration applicable to things whilst we sleep.—A man having, from reflecting on the Succession and number of his own thoughts, got the notion or idea of Duration, he can apply that notion to things which exist while he does *not* think; as he that has got the idea of Extension from bodies by his sight or touch can apply it to distances where no *body* is seen or felt. And therefore, though a man has no perception of the length of duration which passed whilst he slept or thought not, yet, having observed the revolution of days and nights, and found the length of their duration to be in appearance regular and constant, he can, *upon the supposition* that that revolution has proceeded after the same manner whilst he was asleep or thought not, as it used to do at other times,—he can, I say, imagine and make *allowance* for the length of duration whilst he slept. But if Adam and Eve (when they were alone in the world) had passed the [first] twenty-four hours in one continued sleep, the duration of [those] twenty-four hours had been irrecoverably lost to them, and been for ever left out of their account of time.

The idea of succession not from motion.—Thus, by *reflecting* on the appearing of various ideas one after another in our Understandings, we get the notion of Succession; which if any one should think we rather get from our observation of *motion* by our senses, he will perhaps be of my mind, when he considers that even Motion produces in his mind an idea of Succession no otherwise than as it produces there a continued train of distinguishable ideas. For, a man looking upon a body really moving perceives yet no motion at all, unless that motion produces a constant train of successive ideas; v. g. a man becalmed at sea, out of sight of land, may look on the sun, or sea, or ship a whole hour together, and perceive no motion in [any of these objects], though it be certain that two, and perhaps all of them, have moved during that time a great way: but as soon as he perceives [any] of them to have changed distance with *some other* body, as soon as this motion produces any *new idea* in him, then he perceives that there has been motion. But wherever a man is with all things at rest about him, without perceiving any motion at all, if during this hour of quiet he has been *thinking*, he will perceive the various ideas of his own thoughts in his own mind, appearing one after another, and thereby observe and find Succession where he could observe no Motion.

The train of ideas has a certain degree of quickness.—Hence I leave it to others to judge, whether it be not probable that our ideas do, whilst we are awake, succeed one another in our minds *at certain distances*, not much unlike the images in the inside of a lantern, turned round by the heat of a candle. This [their] appearance in train, though perhaps it may be sometimes faster and sometimes slower, yet, I guess, *varies not very much* in a waking man: there seem to be certain bounds to the quickness and slowness of the succession of ideas in our minds, beyond which they can neither delay nor hasten.

[My] reason for this conjecture is from observing that in the impressions made upon any of our senses, we can but to a certain degree perceive any succession; which, if exceedingly quick, the *sense* of succession is lost, even in cases where it is evident that there is a real succession. For, any thing that moves round about in a circle in less time than our ideas are wont to succeed one another in our minds, is not perceived to move; but seems to be a perfect, entire circle of that matter or colour, and not a part of a circle in motion. Let a cannon-bullet pass through a room, and in its way take with it any limb or fleshy parts of a man; it is as clear as any demonstration can be, that it must strike *successively* the two sides of the room; it is also evident that it must touch one part of the flesh first, and another after, and so in succession: and yet I believe nobody who ever felt the pain of such a shot, or heard the blow against the two distant walls, could perceive any succession either in the pain or sound of so swift a stroke. Such a part of duration as this, wherein we perceive no succession, is that which we may call an Instant, and is that which takes up the time of *only one* idea in our minds without the succession of another; wherein therefore we perceive no succession at all.

This also happens where the motion is so slow as not to supply a constant train of fresh ideas to the senses, as fast as the mind is capable of receiving new ones into it; and so other ideas of our own thoughts having room to come into our minds between those offered to our senses by the moving body, there the sense of motion is lost; and the body, though it really moves, yet not changing perceivable distance with some other bodies as fast as the ideas of our own minds do naturally follow one another in train, the thing seems to stand still; as is evident in the hands of clocks and shadows of sun-dials, and other constant but slow motions; where, though after certain intervals we perceive by the *change* of distance that it has moved, yet the motion itself we perceive not.

This train the measure of other successions.—So that it seems that the constant and regular succession of ideas in a waking man is, as it were, the measure and standard of all other successions; whereof if any one either exceeds the pace of our ideas,—as where two sounds or pains, &c. take up in their succession the duration of but one idea, or else where any motion or succession is so slow as that it keeps not pace with the ideas in our minds, or the quickness in which they take their turns; as when any one or more ideas in their ordinary course come into our mind *between* those which are offered to the sight by the different perceptible distances of a body in motion, or between sounds or smells following one another,—there also the sense of a constant, continued Succession is lost.

The mind cannot fix long on one invariable idea.—If the ideas of our minds, whilst we have any there, do constantly change and shift in a continual succession, I think, in matter of fact, it is not possible that a man may have one self-same single idea a long time alone in his mind, without any variation; for which (not knowing how the ideas of our minds are framed, of what materials they are made, whence they have their light, and how they come to make their appearance) I can give no other reason but *experience;* and I would have any one *try* whether he can keep one unvaried single idea in his mind, without any other, for any considerable time together.

For trial, let him take any figure, any degree of light or whiteness, or what other he pleases; and he will, I suppose, find it difficult to keep all other ideas out of his mind; but that some, either of another kind, or various considerations of that idea (each of which considerations is a new idea) will constantly succeed one another in his thoughts, let him be as wary as he can.

All that is in a man's power in this case is only to *observe* what the ideas are that take their turns in his Understanding; or else to *direct the sort*, and call in such as he has a desire or use of; but hinder the constant succession of fresh ones he cannot; though he may commonly choose whether he will heedfully observe and consider them.

Ideas, however made, include no sense of motion.—Whether these several ideas in a man's mind be *made by* certain motions, I will not here dispute; but this I am sure, that they include no idea of motion in their *appearance*; and if a man had not the idea of motion otherwise, I think he would have none at all.

Time is duration set out by measures.—Having thus got the idea of Duration, the next thing natural for the mind to do is to get some *measure* of this common duration, whereby it might judge of its different lengths, and consider the distinct order wherein several things exist; without which a great part of our Knowledge would be confused, and a great part of History be rendered very useless. This consideration of Duration, as set out by certain periods, and marked by certain measures or epochs, is that, I think, which most properly we call Time.

A good measure of time must divide its whole duration into equal periods.—In the measuring of extension there is nothing more required [than] the application of the standard or measure we make use of to the thing of whose extension we would be informed. But in the measuring of duration this cannot be done, because no two different parts of succession can be put together to measure one another; and nothing being a measure of duration but duration, as nothing is of extension but extension, we cannot keep by us any standing unvarying measure of duration, which consists in a constant fleeting succession, as we can of certain lengths of extension, as inches, feet, yards, &c., marked out in permanent parcels of matter. Nothing, then, could serve well for a convenient Measure of Time but what has divided the whole length of its duration into apparently equal portions by constantly repeated periods. What portions of duration are not distinguished, or considered as distinguished, and measured by such periods come not so properly under the notion of Time: as appears by such phrases as these, viz. "before all time," and, "when Time shall be no more."

The revolutions of the sun and moon the proper measures of time.—The diurnal and annual Revolutions of the Sun,* as having been from the beginning of nature Constant, Regular, and universally Observable by all mankind, and supposed Equal to one another, have been with reason made use of for the measure of Duration. But the distinction of days and years having depended on the *motion* of the sun, it has brought this mistake with it,—that it has been thought that Motion and Duration were the measure one of another. For, men in the measuring of the length of Time having been accustomed to the ideas of minutes, hours, days, months, years, &c., which they found themselves, upon any mention of time or duration, presently to think on, (all which portions of time were measured out by the motion of those heavenly bodies), they were apt to confound Time and Motion, or at least to think that they had a necessary connexion one with another: whereas *any* constant periodical *appearance* or alteration of ideas in seemingly equi-distant spaces of duration, if universally observable, would have as well distinguished the intervals of Time as those that have been made use of. For, supposing the sun, which some have taken to be a fire, had been *lighted up* at the same distance of time that it now every day *comes* to the same meridian, and [had] then gone out again about twelve hours after, and that in the space of an annual revolution it had sensibly *increased* in brightness and heat, and so *decreased* again; would not such regular *appearances* serve to measure out the distances of duration to all that could observe it, as well without as with motion?

---

* See Locke's own parenthetic remark at page 92, first line.—Ed.

But not by their motion, but periodical appearances.—For the freezing of water or the blowing of a plant, returning at equi-distant periods in all parts of the earth, would as well serve men to reckon their years by, as the motion of the sun; and in effect we see that some people in America counted their years by the coming of certain birds amongst them at their certain seasons, and leaving them at others. [Even] a fit of ague, the sense of hunger or thirst, a smell, or a taste, or any other idea returning constantly at equi-distant periods, and making itself universally be taken notice of, would not fail to measure out the course of Succession, and distinguish the distances of Time. Thus we see, that men born blind count time well enough by years, whose revolutions yet they cannot distinguish by motions that they perceive not: and I ask, whether a blind man who distinguished his years either by the heat of summer or cold of winter, by the smell of any flower of the spring, or taste of any fruit of the autumn, would not have a better measure of time than the Romans had before the reformation of their calendar by Julius Cæsar; or [than] many other people, whose years, notwithstanding the motion of the sun, which they pretend to make use of, are very irregular? And it adds no small difficulty to chronology, that the exact lengths of the years that several nations counted by are hard to be known; they differing very much one from another, and, I think I may say, all of them from the precise motion of the sun. And if the sun moved from the creation to the flood constantly in the equator, and so equally dispersed its light and heat to all the habitable parts of the earth, in days all of the same length, without its annual *variations* to the tropics, as a late ingenious author* supposes, I do not think it very easy to imagine that (notwithstanding the motion of the sun) men should in the antediluvian world from the beginning count by years, or measure Time by periods that had no sensible *marks* very obvious to distinguish them by.

No two parts of duration can be certainly known to be equal.—But perhaps it will be said, "Without a regular *motion*, such as of the sun or some other, how could it ever be *known* that such periods were equal?" To which I answer, The equality of any other returning appearances might be known by the same way [as] that of days was known, or presumed to be so at first; which was only by judging of them by the train of ideas that had passed in men's minds in the intervals: by which train of ideas discovering inequality in the *natural* days, but none in the *artificial* days, the artificial days, or *νυχθήμερα*,* were guessed to be equal, which was sufficient to make them *serve for* a measure. Though exact search has since discovered inequality in the diurnal revolutions of the sun, and we know not whether the annual also be not unequal: these yet, by their presumed and apparent equality, serve as well to reckon time by (though not to measure the parts of duration exactly), as if they could be proved to be exactly equal. We must therefore carefully distinguish betwixt Duration itself and the Measures we make use of to judge of its length. Duration in itself is to be considered as going on in one constant, equal, uniform course. But none of the measures of it which we make use of can be known to do so; nor can we be assured that their assigned parts or periods are equal in duration, one to another; for two successive lengths of duration, however measured, can never be demonstrated to be equal. The motion of the sun, which the world used so long and so confidently for an exact measure of duration, has, as I said, been found in its several parts unequal: and though men have of late made use of a pendulum as a more steady and regular motion than that of the sun, or (*to speak more truly*), of the Earth; yet if any one should be asked how he certainly knows that the two successive *swings* of a pendulum are equal, it would be very hard [for him] to satisfy himself that they are infallibly so; since we cannot be sure that the cause of that motion which is unknown to us shall always operate equally; and we are sure that the medium in which the pendulum moves is not constantly the same: either of which varying may alter the equality of such periods, and thereby destroy the certainty and exactness of the measure by motion, as well as any other periods, of other appearances; the *notion* of duration still remaining clear, though our *measures* of it cannot, any of them, be demonstrated to be exact.

---

* Dr. Burnet, in his "Theory of the Earth."—Ed.

---

* For the use of this word, see Nov. Test. Græc, II. Cor. xi. 25—Ed.

Time not the measure of motion.—One thing seems strange, that, whilst all men manifestly measured time by the motion of the great and visible bodies of the world, Time yet should be defined to be—'the Measure of Motion;' whereas it is obvious to every one who reflects ever so little on it, that, to measure motion, *space* is as necessary to be considered as *time*; and those who look a little farther will find also the *bulk* of the thing moved necessary to be taken into the computation by any one who will estimate or measure motion so as to judge right of it. Nor indeed does Motion any otherwise conduce to the measuring of Duration, than as it constantly brings about the return of certain sensible ideas in [apparently] equi-distant periods. For if the motion of the sun were as unequal as of a ship driven by unsteady winds, sometimes very slow, and at others, irregularly, very swift; or if, being constantly equally swift, it yet was not circular, and produced not the same *appearances;* it would not at all help us to measure Time any more than the [apparently] unequal motion of a comet does.

Minutes, hours, days, and years not necessary measures of duration.—Minutes, hours, days, and years are, then, no more necessary to Time or Duration than inches, feet, yards, and miles marked out in any matter are to Extension. For though we in this part of the universe, by the constant use of them, as of periods set out by the revolutions of the sun, or as known parts of such periods, have fixed the ideas of such lengths of duration in our minds, which we apply to all parts of time whose lengths we would consider; yet there may be other parts of the universe where they no more use these measures of ours than in Japan they [use] our inches, feet, or miles: but yet something analogous to them there must be. For without some regular periodical returns, we could not measure, or signify to others, the length of any duration, though at the same time the world were as full of motion as it is now, but no part of it disposed into regular and apparently equi-distant revolutions. But the different measures that may be made use of for the account of time do not at all alter the notion of duration, which is the thing to be measured, [any] more than the different standards of a foot and a cubit alter the notion of extension to those who make use of those different measures.

Our measures of time applicable to duration before time.—The mind, having once got such a Measure of Time as the annual revolution of the sun, can apply that measure to duration wherein that measure itself did not exist, and with which, in the reality of its being, it had nothing to do: for should one say that Abraham was born in the 2,712th year of the Julian period, it is altogether as intelligible as reckoning from the beginning of the world; though there were, so far back, no motion of the sun, nor any other motion at all. For though the Julian period be supposed to begin several hundred years before there were really either days, nights, or years marked out by any revolutions of the sun, yet we reckon as right, and thereby measure durations as well, as if really at that time the sun had existed, and kept the same ordinary motion it does now. The idea of duration equal to an annual revolution of the sun is as easily applicable in our thoughts to duration where no sun or motion was, as the idea of a foot or yard taken from bodies here can be applied in our thoughts to distances beyond the confines of the world, where are no bodies at all.

For, supposing it were 5,639 miles, or millions of miles, from this place to the remotest body of the universe (for, being finite, it must be at *a certain* distance), as we suppose it to be 5,639 years from this time to the first existence of any *body* in the beginning of the world; we can in our thoughts apply this measure of a year to duration before the creation, or beyond the duration of bodies or motion, as we can [apply] this measure of a mile to space beyond the utmost bodies; and by the one [can] measure Duration where there [is] no motion, as well as by the other measure Space in our thoughts where there is no body.

I doubt not but that every one may easily conceive in his mind the *beginning* of Motion, though not of all Duration; and so may come to a stop and *non ultra* in his consideration of motion. So also in his thoughts he may set limits to Body, and the Extension belonging to it; but not to Space where no body is; the utmost bounds of Space and Duration being beyond the reach of thought, as well as the utmost bounds of Number are beyond the largest comprehension of the mind; and all for the same reason.

Eternity.—By the same means, therefore, and from the same original, that we come to have the idea of Time, we have also that idea which we call Eternity; viz. having got the idea of Succession and Duration, by *reflecting* on the train of our own ideas, caused in us either by the natural appearances of those ideas coming constantly of themselves into our waking thoughts, or else caused by external objects successively affecting our senses; and having from the revolutions of the sun got the ideas of certain lengths of duration, *we can in our thoughts add* such lengths of duration to one another as often as we please, and apply them, so added, to durations past or to come: and this we can continue to do, without bounds or limits; and proceed *in infinitum*, and apply thus the length of the annual motion of the sun to duration supposed [to exist] before the sun's or any other motion had its being; which is no more difficult or absurd than to apply the notion I have of the moving of a shadow, [during] one hour to-day upon the sun-dial, to the duration of something last night; v. g. the burning of a candle, which is now absolutely separate from all actual motion; and it is as impossible for the duration of that flame for an hour last night to co-exist with any motion that now is, or for ever shall be, as for any part of Duration that was before the beginning of the world to co-exist with the motion of the sun now. But yet this hinders not but that, having the idea of the length of the motion of the shadow on a dial between the marks of two hours, I can as distinctly measure in my thoughts the duration of that candle-light last night as the duration of anything that does now exist: and it is no more than to think, that had the sun shone then on the dial, and moved after the same rate [as] now, the shadow on the dial would have passed from one hour-line to another whilst that flame of the candle lasted.

The notion of an hour, day, or year, being only the idea of the length of certain periodical regular motions ([none] of which motions do ever all at once exist, but only in the ideas of them in my memory, derived from my Senses or Reflection), I can with the same ease and for the same reason apply it in my thoughts to duration antecedent to all manner of *motion*, as well as to anything that is but a minute or a day antecedent to the motion that at this very moment the sun is in. All things past are equally and perfectly at rest; and [in] this way of consideration of them are all *one;* whether they were before the beginning of the world, or but yesterday; the measuring of any duration by some motion depending not at all on the real co-existence of that thing to that motion, or any other periods of revolution; but the having a clear idea of the *length* of some periodical known motion or other intervals of duration in my mind, and applying that to the duration of the thing I would measure.

Hence we see that some men imagine the duration of the world from its first existence to this present year 1689 to have been 5,639 years, or equal to 5,639 annual revolutions of the sun, and others a great deal more; as the Egyptians of old, who in the time of Alexander counted 23,000 years from the reign of the sun; and the Chinese now, who account the world 3,269,000 years old, or more: which longer duration of the world, according to their computation, though I should not believe to be true, yet I can equally *imagine* it with them, and as truly understand and say one is longer than the other, as I understand that Methuselah's life was longer than Enoch's. And if the common reckoning of 5,639 should be true (as it may be, as well as any other assigned), it hinders not at all my imagining what others *mean* when they make the world 1,000 years older, since every one may with the same facility imagine (I do not say *believe)* the world to be 50,000 years old as 5,639, and may as well conceive the duration of 50,000 years as 5,639.

For as, in the [inspired] history of the Creation, I can imagine that light existed three days before the sun was, or had any motion, barely by thinking that the duration of light before the sun was created was *so long as* (if the sun had moved then as it does now) would have been *equal to* three of his diurnal revolutions; so by the same way I can have an idea of chaos, or [of] angels being created a minute, an hour, a day, a year, or one thousand years, before there was either light or any continued motion. For if I can but consider duration equal to one minute, before either the being or motion of any *body*, I can add one minute more till I come to sixty; and by the same way of adding minutes, hours, or years (i. e. such or such parts of the sun's revolutions, or any other period whereof I have the idea), proceed *in infinitum*, and suppose a duration exceeding as many such periods as I can reckon: which I think is the notion we have of Eternity, of whose infinity we have no other notion than we have of the infinity of Number, to which we can add for ever without end.

And thus I think it is plain, that, from those two fountains of all Knowledge before mentioned, viz., Reflection and Sensation, we get the ideas of Duration, and the Measures of it.

◆

CHAPTER XVI.

OF NUMBER.

Number the simplest and most universal idea.—Amongst all the ideas we have, as there is none suggested to the mind by more ways, so there is none more simple than that of Unity or one. It has no shadow of variety or composition in it; every object our senses are employed about, every idea in our Understandings, every thought of our minds brings this idea along with it: and therefore it is *the most intimate* to our thoughts, as well as it is, in its agreement to all other things, *the most universal* idea we have. For Number applies itself to men, angels, actions, thoughts—every thing that either does exist or can be imagined.

Its modes made by addition.—By repeating this idea in our minds, and adding the repetitions together, we come by the Complex ideas of the Modes of it. Thus by adding one to one we have the complex idea of a couple; by putting twelve units together we have the complex idea of a dozen ; and so of a score, or a million, or any other number.

Each mode distinct.—The Simple Modes of Number are of all other the most *distinct*; every the least variation which is a unit making each combination as *clearly* different from that which approaches nearest to it, as the most remote ; two being as distinct from one, as two hundred ; and the idea of two as distinct from the idea of three, as the magnitude of the whole earth is from that of a mite. This is not so in other Simple Modes, in which it is not so easy, nor perhaps possible, for us to distinguish betwixt two approaching ideas, which yet are really different. For who will undertake to find a difference between the white of this paper, and that of the next degree to it ? or can form distinct ideas of every the least excess in extension ?

Therefore demonstrations in numbers the most precise.—The clearness and *distinctness* of each mode of Number from all others, even those that approach nearest, make me think that demonstrations in numbers, if they are not more evident and exact than in extension, yet are more general in their use, and more determinate in their application. Because the ideas of numbers are more precise and distinguishable than in extension, where equality and excess are not so easy to be observed or measured; because our thoughts cannot in space arrive at any determined smallness beyond which it cannot go, as a unit; and therefore the quantity or proportion of any the least excess cannot be discovered: which is clear otherwise in Number, where, as has been said, 91 is as distinguishable from 90 as from 9000, though 91 be the next immediate excess to 90. But it is not so in extension, where whatsoever is more than *just* a foot, or an inch, is not distinguishable from the standard of a foot, or an inch; and in lines which appear of an equal length, one may be longer than the other by innumerable parts; nor can any one assign an angle which shall be the *next* to a right one.

Names necessary to numbers.—By repeating, as has been said, the idea of a unit, and joining it to another unit, we make one collective idea, marked by the name 'two.' And whosoever can do this and proceed on, still *adding* one more to the last collective idea which he had of any number, and [can] give a name to it, may count, or have ideas for several collections of units, distinguished one from another, as far as he has a series of names for following numbers, and a memory to retain that series with their several names; all numeration being but still the adding of one unit more, and giving to the whole together, as comprehended in one idea, a new or distinct *name* or sign, whereby to know it from those before and after, and distinguish it from every smaller or greater multitude of units.

To show how much distinct names conduce to our well reckoning, or having useful ideas of numbers, let us set all these following figures as the marks of *one number;* v. g.:—

Nonillions.	Octillions.	Septillions.	Sextillions.	Quintrillions.
857324	162486	345896	437916	423147
Quatrillions.	**Trillions.**	**Billions.**	**Millions.**	**Units.**
248106	235421	261734	368149	623137

The ordinary way of naming this number in English will be the often repeating of millions, of millions, of millions, of millions, of millions, of millions, of millions, of millions, which is the denomination of the second six figures. In which way it will be very hard to have any distinguishing notions of this number: but whether, by giving [to] *every* [division of] *six figures* a new and orderly denomination, these, and perhaps a great many more figures in progression, might not easily be counted distinctly, and ideas of them both got more easily to ourselves, and more plainly signified to others, I leave to be considered. This I mention only to show how necessary *distinct names* are to numbering, without pretending to introduce new ones of my invention.

Why children number not earlier.—Thus children, either for want of names to mark the several progressions of numbers, or not having yet the faculty to collect scattered ideas into complex ones, and range them in a regular order, and so retain them in their memories, as is necessary to reckoning, do not begin to number very early, nor proceed in it very far or steadily, till a good while after they are well furnished with good store of other ideas; and one may often observe them discourse and reason pretty well, and have very clear conceptions of several other things, before they can tell twenty. And some, through the default of their memories, who cannot retain the several combinations of numbers, with their names annexed in their distinct orders, and the dependence of so long a train of numeral progressions, and their relation one to another, are not able all their lifetime to reckon or regularly go over any moderate series of numbers. For he that will count twenty, or have any idea of that number, must know that nineteen went before, with the distinct name or sign of every one of them, as they stand marked in their order; for wherever this fails, a gap is made, the chain breaks, and the progress in numbering can go no farther. So that to reckon right it is required, (1) That the mind distinguish carefully two ideas which are different, one from another, only by the addition or subtraction of one unit. (2) That it retain in memory the names or marks of the several combinations from a unit to that number; and that not confusedly, and at random; but in that *exact order* that the numbers follow one another.

Number measures all measurables.—This farther is observable in Number, that it is that which the mind makes use of in measuring all things that by us are measurable, which principally are Expansion and Duration; and our idea of Infinity, even when applied to those, seems to be nothing but the Infinity of *number*. For what else are our ideas of Eternity and Immensity, but the repeated addition of certain ideas of imagined parts of duration and expansion with the infinity of number, in which we can come to no end of addition? For let a man collect into one sum as great a number as he pleases, this multitude, how great soever, lessens not the power of adding to it, nor brings him any nearer the end of the inexhaustible stock of Number, where still there remains as much to be added as if none were taken out. And this endless addition or addibility (if any one like the word better) of numbers, so apparent to the mind, is that, I think, which gives us the clearest and most distinct idea of Infinity; of which more in the following chapter.

CHAPTER XVII.

OF INFINITY.

Infinity in its original intention attributed to space, duration, and number.—He that would know what kind of idea it is to which we give the name of Infinity cannot do it better than by considering, [1.] To what Infinity is, by the mind, more *immediately* attributed; and then, [2.] How the mind comes to frame it.

Finite and Infinite seem to be looked upon by the mind as the Modes of Quantity; and to be attributed *primarily*, in their first designation, only to those things which have *parts*, and are capable of increase or diminution by the addition or subtraction of any the least part; and such are the ideas of Space, Duration, and Number, which we have considered in the foregoing Chapters. It is true that we cannot but be assured that the great God, of whom and from whom are all things, is incomprehensibly Infinite; but yet when we apply to that First and Supreme Being *our* idea of Infinite, we do it *primarily* in respect to His *duration* and *ubiquity*; and, I think, more *figuratively* to His *power*, *wisdom*, and *goodness*, and other attributes which are properly *inexhaustible*, and *incomprehensible*, &c. For when we call them *infinite*, we have no other idea of *this* Infinity [than] what carries with it some reflection on and intimation of that *number* or extent *of the acts* or objects of God's power, wisdom, and goodness; which can never be supposed so great or so many, [that] these attributes will not always surmount and exceed [them], let us multiply them in our thoughts as far as we can, with all the infinity of endless number. I do not pretend to say *how* these attributes *are* in God, who is infinitely beyond the reach of our narrow capacities; they do, without doubt, contain in them all possible perfection: but this, I say, is our way of conceiving them; and these our ideas of their Infinity.

The idea of finite easily got.—Finite then and Infinite being by the mind looked on as modifications of Expansion and Duration, the next thing to be considered is, *how* the mind comes by them. As for the idea of *finite*, there is no great difficulty. The obvious portions of Extension that affect our senses carry with them into the mind the idea of finite; and the ordinary periods of Succession whereby we measure time and duration, as hours, days, and years, are bounded lengths. The difficulty is, *how* we come by those boundless ideas of Eternity and Immensity, since the objects which we converse with come so much short of any approach or proportion to that largeness.

How we come by the idea of infinity.—Every one that has any idea of any stated lengths of space, as a foot, finds that he can *repeat* that idea; and joining it to the former, make the idea of two feet, and by the addition of a third, three feet, and so on, without ever coming to an end of addition.

Our idea of space boundless.—This, I think, is the way whereby the mind gets the idea of Infinite Space. It is a quite different consideration to examine whether the mind has the idea of *such a boundless space actually existing*, since our ideas are not always proofs of the existence of things; but yet, I may say that we are apt to think that Space in itself *is* actually boundless; to which imagination the idea of Space or Expansion of itself naturally leads us. For, it being considered by us either [1.] as the extension of body, or [2.] as existing by itself without any solid matter taking it up, (for of such a void space we have not only the *idea*, but I have proved, as I think, from the motion of body, its necessary *existence*), it is impossible the mind should be ever able to find or suppose any end of it, or be stopped anywhere in its progress in this Space, how far soever it extends its thoughts. Any bounds made with body, even adamantine walls, are so far from putting a stop to the mind in its farther progress in Space and Extension, that it rather facilitates and enlarges it: for so far as that body reaches, so far no one can doubt of Extension; and when we are come to the utmost extremity of body, what is there that can there put a stop, and satisfy the mind that it is at the end of Space, when it *perceives* it is not; nay, when it is satisfied that body itself can move into it? For if it be necessary for the motion of body that there should be an empty space, though never so little, here amongst bodies; and it be possible for body to move in or through that empty space—(nay, it is impossible for any particle of matter to move *but* into an empty space)—the same possibility of a body's moving into a void space *beyond* the utmost bounds of body, as well as into a void space interspersed *amongst* bodies, will always remain clear and evident: the idea of empty, pure Space, whether within or beyond the confines of all bodies, being exactly the same, differing not in nature, though in bulk; and there being nothing to hinder body from moving into it : so that wherever the mind places itself by any thought, either amongst, or remote from, all bodies, it can, in this uniform idea of Space, nowhere find any bounds, any end; and so must necessarily conclude it, by the very nature and idea of each part of it, to be actually infinite.

And so of duration.—As, by the power we find in ourselves of repeating, as often as we will, any idea of Space, we get the idea of Immensity; so, by being able to repeat the idea of any length of Duration with all the endless addition of number, we come by the idea of Eternity. For we find in ourselves, [that] we can no more come to an end of such repeated ideas than we can come to the end of Number; which every one perceives he cannot. But here again it is another question, quite different from our having an *idea* of Eternity, to know whether there were any *real being* whose duration has been eternal. And as to this, I say, he that considers something now existing must necessarily come to *something* Eternal. But having spoken of this in another place, I shall say here no more of it, but proceed on to some other considerations of our idea of Infinity.

Why other ideas are not capable of infinity.—It may be demanded, why we do not attribute Infinity to other ideas as well as those of Space and Duration; since they may be as easily and as often repeated in our minds as the other; and yet nobody ever thinks of infinite sweetness, or infinite whiteness, though he can repeat the idea of sweet or white as frequently as those of a yard or a day? To which I answer: Those ideas that consist of *parts* are capable of being augmented by every addition of the least part; but if you take the idea of white which one parcel of snow yielded yesterday to your sight, and another idea of white from another parcel of snow you see to-day, and put them together in your mind, they *embody*, as it were, and run into one; and the idea of whiteness is not at all increased: and if we add a less degree of whiteness to a greater, we are so far from increasing that we diminish it. Therefore, the different ideas of whiteness, &c., are called *degrees:* [which, as they] consist not of *parts*, cannot be augmented to what proportion men please, nor be stretched beyond what they have received by their senses; but Space, Duration, and Number, being capable of increase by repetition, leave in the mind an idea of an endless room for more; nor can we conceive anywhere a stop to a farther addition or progression: and so *those ideas alone* lead our minds towards the thought of Infinity.

Difference between infinity of space and space infinite.—Though our idea of Infinity arise from the contemplation of *quantity*, and the endless increase the mind is able to make in quantity, by the repeated additions of what portions thereof it pleases; yet, we cause great confusion in our thoughts when we join Infinity to any *supposed* idea of quantity the mind can be thought *to have;* and so discourse or reason about an *infinite quantity*, viz. an infinite space, or an infinite duration. For our idea of Infinity being, as I think, an endless growing idea, but the idea of any *quantity* the mind *has* being at that time *terminated* in that idea, (for be it as great as it will, it can be no greater than it is), to join Infinity to it is to adjust a standing measure to a growing bulk; and therefore I think it is not an insignificant subtilty if I say that we are carefully to distinguish between the idea of *the infinity of space* and the idea of *a space infinite.* The first is nothing but a supposed endless progression of the mind over what repeated ideas of Space it pleases; but to have actually *in* the mind the idea of a Space Infinite is to suppose the mind already passed over, and actually to have a view of all those repeated ideas of Space which an endless repetition can never totally represent to it; which carries in it a plain contradiction.

We have no idea of infinite space.—Though the idea of Infinity, seems to be pretty clear when we consider nothing else in it but the *negation of an end*, yet when we would frame in our minds the idea of an infinite space or duration, that idea is very obscure and confused, because it is made up of two parts, very different, if not inconsistent. And therefore I think it is that we are so easily confounded when we come to argue and reason about infinite space or duration, &c. Because the parts of such an idea not being perceived to be, as they are, inconsistent, the one side or other always perplexes whatever consequences we draw from the other; as an idea of *motion not passing on* would perplex any one who should argue from such an idea, which is not better than an idea of *motion at rest;* and such another seems to me to be the idea of a *space* or (which is the same thing) a *number infinite*, i. e. of a space or number which the mind actually has, and so views and terminates in; and of a space or number which, in a constant and endless enlarging and progression, it can in thought never attain to.

Number affords us the clearest idea of infinity.—But of all other ideas, it is Number, which, I think, furnishes us with the *clearest* and most distinct idea of Infinity we are capable of. For even in Space and Duration, when the mind pursues the idea of Infinity, it there makes use of the ideas and repetitions of numbers, as of millions of millions of miles or years, which are so many distinct ideas kept best by *number* from running into a confused heap, wherein the mind loses itself; and when it has added together as many millions, &c., as it pleases, of known lengths of space or duration, the clearest idea it can get of Infinity is, the confused, incomprehensible remainder of endless addible numbers, which affords no prospect of stop or boundary.

Our different conception of the infinity of number, duration, and expansion.—It will, perhaps, give us a little farther light into the idea we have of Infinity, and discover to us that it is nothing but the infinity of *number* applied to determinate parts, of which we have in our minds the distinct ideas, if we consider that Number is not generally thought by us infinite, whereas Duration and Extension are apt to be so; which arises from hence, that in number we are *at one end*, as it were: for there being in [integral] number nothing less than a unit, we there stop, and are at an end; but in addition, or increase of number, we can set no bounds: and so it is like a line, whereof one end terminating with us, the other is extended still forwards beyond all that we can conceive; but in space and duration it is otherwise. For in duration we consider it as if this line of number were extended both ways to an [in]conceivable, [in]determinate, and infinite length; which is evident to any one that will but reflect on what consideration he hath of eternity; which, I suppose, he will find to be nothing else but the turning this infinity of number both ways, *à parte ante* and *à parte post*. For when we would consider eternity *à parte ante*, what do we but, beginning from ourselves and the present time we are in, repeat in our minds the ideas of years, or ages, or any other assignable portion of duration past, with a prospect of proceeding in such addition with all the infinity of number? and when we would consider eternity *à parte post*, we just after the same rate begin from ourselves, and reckon by multiplied periods yet to come, still extending that line of number as before: and these two being put together are that infinite duration we call Eternity; which, as we turn our view either way, forwards or backwards, appears Infinite, because we still turn that way the infinite end of *number*, i. e. the power still of *adding* more.

The same happens also in Space, wherein conceiving ourselves to be, as it were, *in the centre*, we do on all sides pursue those indeterminable lines of number.

Infinite divisibility.—And since in any bulk of matter our thoughts can never arrive at the utmost divisibility, therefore there is an apparent infinity to us also in that, which has the infinity also of number; but with this difference—that in the former considerations of the infinity of space and duration, we only use *addition* of numbers; whereas this is like the division of a unit into its fractions, wherein the mind also can proceed *in infinitum*, as well as in the former additions, it being indeed but the *addition* still of *new* numbers; though in the addition of the one we can have no more the positive idea of a space infinitely great, than in the division of the other we can have the idea of a body infinitely little; our idea of Infinity being, as I may say, a growing and fugitive idea, still in a boundless progression, that can stop nowhere.

No positive idea of infinity.—Though it be hard, I think, to find any one so absurd as to say he has the *positive* idea of an actual *infinite* number, the infinity whereof lies only in a *power* still of adding any combination of units to any former number, and *that* as long and as much as one will; the like also being in the infinity of space and duration, which power leaves always to the mind room for endless additions; yet there be those who imagine they have *positive* ideas of *infinite duration* and *space*. It would, I think, be enough to destroy any such positive idea of Infinite to ask him that has it, whether he could add to it or [not]? which would easily show the mistake of such a positive idea. We can, I think, have no positive idea of any space or duration which is not made up of, and commensurate to, repeated numbers of feet or yards, or days and years; which are the common measures whereof we have the idea in our minds, and whereby we judge of the greatness of this sort of quantities. And therefore, since an idea of infinite space or duration must needs be made up of infinite parts, it can have no other infinity than that of *number*, capable still of farther addition; but not an actual positive idea of *a number infinite*. For, I think, it is evident that the addition of finite things together (as are all lengths whereof we have positive ideas) can never otherwise produce the idea of infinite than as number does; which, consisting of additions of finite units one to another, suggests the idea of infinite only by *a power* we find we have *of still increasing* the sum, and adding more of the same kind, without coming nearer the end of such progression.

They who would prove their idea of infinite to be positive, seem to me to do it by argument taken from the *negation of an end;* which being negative, the negation of it is positive. He that considers that the end is, in body, but the extremity or superficies of that body, will not, perhaps, be forward to grant, that the end is a bare negative: and he that perceives the end of his pen is black or white will be apt to think that the end is something more than a pure negation. Nor is it, when applied to duration, the bare negation of existence, but more properly *the last moment* of it. But if they will have the end to be nothing but the bare negation of existence, I am sure they cannot deny that the beginning is the first instant of being, and is not by anybody conceived to be a bare negation; and therefore, by their own argument, the idea of eternal *á parte ante*, or of a duration without a beginning, is but a negative idea.

What is positive, what negative, in our idea of infinite.—The idea of infinite has, I confess, *something* of positive in all those things we apply it to. When we would think of infinite space or duration, we at first step usually make some very large idea, as, perhaps, of millions of ages or miles, which possibly we double and multiply several times. All that we thus amass together in our thoughts *is positive*, and the assemblage of a great number of positive ideas of space or duration. But what still remains beyond this we have no more a positive distinct notion of, than a mariner has of the depth of the sea, where, having let down a large portion of his sounding-line, he reaches no bottom: whereby he knows the depth to be so many fathoms, *and more;* but *how much* that more is, he has no distinct notion at all: and could he always supply new line, and find the plummet always sink without ever stopping, he would be something in the pos[ition] of the mind reaching after a complete and positive idea of Infinity. [Our idea of Infinity, then, is partly positive, partly relative, and partly negative.] (1) The idea of *so much* is *positive* and clear. (2) The idea of *greater*, is also clear, but it is but a *comparative* idea. (3) The idea of so much greater as cannot be *comprehended* is plain[ly] *negative.*

Some think they have a positive idea of eternity, and not *of infinite space.*—There are some I have met with that put so much difference between infinite *duration* and infinite *space*, that they persuade themselves that they have a *positive* idea of eternity, but that they have not, nor can have, any idea of infinite space. The reason of which mistake I suppose to be this, that finding by a due contemplation of causes and effects that it is necessary to admit *some* Eternal Being, and so to consider the real existence of that Being as taking up, and commensurate to, their idea of eternity; but, on the other side, not finding it necessary, but, on the contrary, apparently absurd, that *body* should be infinite, they forwardly conclude they can have no idea of infinite space, because they can have no idea of infinite matter. Which consequence, I conceive, is very ill collected; because the existence of matter is [in] no way *necessary* to the existence of space; no more than the existence of motion or the sun is necessary to duration, though duration uses to be measured by it: and I doubt not but a man may have the idea of ten thousand miles square without any *body* so big, as well as the idea of ten thousand years without any *body* so old. It seems as easy to me to have the idea of space empty of body, as to think of the capacity of a bushel without corn, or the hollow of a nut-shell without a kernel in it: it being no more necessary that there should be existing a solid body infinitely extended because we have an idea of *the infinity of space*, than it is necessary that the world should be eternal because we have an idea of *infinite duration:* and why should we think our idea of infinite space requires the real existence of matter to support it, when we find that we have as clear an idea of infinite *duration to come*, as we have of infinite duration past? though, I suppose, nobody thinks it conceivable that anything does or has existed in that future duration. Nor is it possible to join our idea of future duration with present or past existence, any more than it is possible to make the ideas of yesterday, to-day, and to-morrow to be the same; or [to] bring ages past and future together, and make them contemporary. But if these men are of the mind, that they have clearer ideas of infinite duration than of infinite space,—because it is past doubt that God has existed from all eternity, but there is no real matter co-extended with infinite space;—yet those philosophers who are of opinion that infinite space is possessed by God's infinite omnipresence, as well as infinite duration by His eternal existence, must be allowed to have as clear an idea of infinite space as of infinite duration; though neither of them, I think, has any *positive* idea of Infinity, in either case. For, if a man had a positive idea of infinite, either duration or space, he could add two infinites together; nay, make one infinite infinitely bigger than another: absurdities too gross to be confuted.

All these ideas from sensation and reflection.—If I have dwelt long on the consideration of Duration, Space, and Number, and what arises from the contemplation of them, Infinity, it is possibly no more than the matter requires; there being few Simple ideas whose Modes give more exercise to the thoughts of men than these do. I pretend not to treat of them in their full latitude; it suffices to my design to show *how* the mind receives them, such as they are, from Sensation and Reflection; and how even the idea we have of Infinity, how *remote* soever it may seem to be from any object of sense or operation of our mind, has nevertheless, as all our other ideas, its *original* there.

◆

CHAPTER XVIII.

OF OTHER SIMPLE MODES.

Modes of Motion.—I shall, for method's sake, though briefly, give an account of some few more [Simple Modes], and then proceed to more Complex ideas.

To slide, roll, tumble, walk, creep, run, dance, leap, skip, and abundance of others that might be named, are words which are no sooner heard [than] every one who understands English has presently in his mind distinct ideas; which are all but [ideas of] the different modifications of Motion. Modes of motion answer those of extension: [save that] *swift* and *slow* are two different ideas of motion, the measures whereof are made of the distances of time and space put together; so *they* are Complex ideas comprehending Time and Space with Motion.

Modes of sounds.—The like variety have we in sounds. Every articulate word is a different modification of Sound; by which we see that, from the sense of hearing, by such modifications, the mind may be furnished with distinct ideas to almost an infinite number. Sounds, also, besides the distinct cries of birds and beasts, are modified by diversity of notes of different length put together, which make that complex idea called a *tune*, which a musician may have in his mind when he hears or makes no sound at all, by reflecting on the ideas of those sounds so put together silently in his own fancy.

Modes of colours.—Those of Colours are also very various; some we take notice of, as the different degrees, or, as they are termed, *shades* of the same colour. But since we very seldom make assemblages of colours either for use or delight but Figure is taken in also, and has its part in it, as in painting, weaving, needle-work, &c., those which are taken notice of do most commonly belong to Mixed Modes, as being made up of ideas of divers kinds, viz., Figure and Colour, such as beauty, rainbow, &c.

Modes of tastes.—All compounded Tastes and Smells are also Modes made up of these simple ideas of those senses. But they, being such as generally we have not names for, are less taken notice of, and cannot be set down in writing; and therefore must be left without enumeration to the thoughts and experience of the reader.

Some simple modes have no names.—In general it may be observed that those Simple Modes which are considered but as different *degrees* of the same simple idea, though they are in themselves, many of them, very distinct ideas, yet have ordinarily no distinct *names;* nor are much taken notice of as distinct ideas where the difference is but very small between them. Whether men have neglected these Modes, and given no names to them, as wanting measures nicely to distinguish them; or because, when they *were* so distinguished, *that* knowledge would not be of general or necessary use, I leave to the thoughts of others: it is sufficient to my purpose to show, that all our Simple ideas come to our minds only by Sensation and Reflection; and that when the mind has them, it can variously repeat and compound them, and so make new Complex ideas. But though white, red, sweet, &c., have not been *modified* or made into complex ideas by several combinations so as to be named, and thereby ranked into species; yet some others of the simple ideas, viz., those of Unity, Duration, Motion, &c., above instanced, as also Power and Thinking, have been thus modified to a great variety of complex ideas, with names belonging to them.

Why some modes have and others have not names.—The reason whereof, I suppose, has been this, that—the great concernment of men being with men one amongst another—the knowledge of men and their actions and the signifying of them to one another was most necessary; and therefore they made ideas of action very nicely modified, and gave those complex ideas names, that they might the more easily record and discourse of those things they were daily conversant in without circumlocution; and that the things they were continually to give and receive information about might be the easier and quicker understood. That this is so, and that men, in framing different complex ideas, and giving them names, have been much governed by the *end* of speech in general, (which is a very short and expedite way of conveying their thoughts one to another), is evident in the names which in several arts have been found out and applied to several complex ideas of modified actions belonging to their several trades, for dispatch sake, in their direction or discourses about them. Which ideas are not generally framed in the minds of men not conversant about these operations. And hence the words that stand for them by the greatest part of men of the same language are not understood.

◆

CHAPTER XIX.

OF THE MODES OF THINKING.

Sensation, remembrance, contemplation, &c.—When the mind turns its view inwards upon itself, and contemplates its own actions, Thinking is the first that occurs. In it the mind observes a great variety of modifications, and from thence receives distinct ideas. Thus the perception which actually accompanies and is annexed to any impression on the body made by an external object, being distinct from all other modifications of Thinking, furnishes the mind with a distinct idea which we call Sensation; which is, as it were, the actual entrance of any idea into the Understanding by the senses. The same idea, when it again *recurs* without the operation of the like object on the external sensory, is Remembrance: if it be *sought after* by the mind, and with pain and endeavour found, and brought again in view, it is Recollection: if it be held there long under attentive consideration, it is Contemplation: when ideas float in our mind without any reflection or regard of the Understanding, it is that which the French call

Reverie; our language has scarce a name for it: when the ideas that offer themselves are taken notice of, and, as it were, registered in the memory, it is Attention: when the mind with great earnestness, and of choice, fixes its view on any idea, considers it on all sides, and will not be called off by the ordinary solicitation of other ideas, it is that we call *intention* or Study. Sleep, without dreaming, is rest from all these: and Dreaming itself is the having of ideas (whilst the outward senses are stopped, so that they receive not outward objects with their usual quickness) in the mind, not suggested by any external objects or known occasion, nor under any choice or conduct of the Understanding; and whether that which we call Ecstacy be not dreaming with the eyes open, I leave to be examined.

These are some few instances of those various Modes of Thinking which the mind may observe in itself, and so have as distinct ideas of as it has of white and red, a square or a circle. I do not pretend to enumerate them all; nor to treat at large of this set of ideas which are got from Reflection. It suffices to my present purpose to have shown here, by some few examples, of *what sort* these ideas are, and *how* the mind comes by them.

I would further conclude from hence that Thinking is the *action*, not the *essence* of the soul: since the operations of agents will easily admit of intention and remission; but the essences of things are not conceived capable of any such variatioh.

CHAPTER XX.

OF MODES OF PLEASURE AND PAIN.

Good and evil, what.—Things are good or evil only in reference to Pleasure or Pain. That we call *good*, which is apt to cause or increase pleasure, or diminish pain, in us; or else to procure or preserve [to] us the possession of any other good, or [the] absence of any evil. And, on the contrary, we name that *evil*, which is apt to produce or increase any pain, or diminish any pleasure, in us; or else to procure us any evil, or deprive us of any good. By *pleasure* and *pain*, I must be understood to mean of body or mind, as they are commonly distinguished; though, in truth, they [are] only different constitutions of the *mind*, sometimes occasioned by disorder in the body, sometimes by thoughts in the mind.

Our passions moved by good and evil.—Pleasure and Pain, and that which causes them, *good* and *evil*, are the hinges on which our passions turn: and if we reflect on ourselves, and observe how these, under various considerations, operate in us,—what modifications or tempers of mind, what internal sensations (if I may so call them), they produce in us,—we may thence form to ourselves the ideas of our passions.

Love.—Thus any one reflecting upon the thought he has of the delight which any present or absent thing is apt to produce in him has the idea we call Love.

Hatred.—On the contrary, the thought of the pain which anything present or absent is apt to produce in us is what we call Hatred. Were it my business here to inquire any farther than into the bare ideas of our passions, as they depend on different modifications of Pleasure and Pain, I should remark, that our love and hatred of inanimate, insensible beings is commonly founded on that pleasure and pain which we receive from their *use* and application [in] any way to our senses, though with their destruction; but Hatred or Love to beings capable of happiness or misery is often the uneasiness or delight which we find in ourselves, arising from a consideration of *their* very being or happiness. Thus the being and welfare of a man's children or friends producing constant delight in him, he is said constantly to *love* them. But it suffices to note, that our ideas of Love and Hatred are but the dispositions of the mind in respect of pleasure and pain in general, however caused in us.

Desire.—The uneasiness a man finds in himself upon the absence of anything whose present enjoyment carries the idea of delight with it, is that we call Desire; which is greater or less as that uneasiness is more or less vehement. Where, by the by, it may perhaps be of some use to remark, that the chief, if not only spur to human industry and action is *uneasiness:* for, whatever good is proposed, if its absence carries no displeasure or pain with it, there is no desire of it, nor endeavour after it. Desire also is stopped or abated by the opinion of the impossibility or unattainableness of the good proposed, as far as the uneasiness is cured or allayed by that consideration.

Joy.—Joy is a delight of the mind from the consideration of the present or assured approaching possession of a good: and we are then possessed of any good, when we have it so in our power that we can use it when we please.

Sorrow.—Sorrow is uneasiness in the mind upon the thought of a good lost, which might have been enjoyed longer; or the sense of a present evil.

Hope.—Hope is that pleasure in the mind which every one finds in himself, upon the thought of a profitable future enjoyment of a thing which is apt to delight him.

Fear.—Fear is an uneasiness of the mind, upon the thought of future evil likely to befall us.

Despair.—Despair is the thought of the unattainableness of any good; which works differently in men's minds, sometimes producing uneasiness or pain, sometimes rest and indolence.

Anger.—Anger is uneasiness or discomposure of the mind upon the receipt of any injury, with a present purpose of revenge.

Envy.—Envy is an uneasiness of mind caused by the consideration of a good we desire, obtained by one [who], we think, should not have had it before us.

What passions all men have.—These two last, Envy and Anger, not being caused by pain and pleasure *simply* in themselves, but having in them some *mixed considerations* of ourselves and others, are not therefore to be found in all men, because those other parts—of valuing their merits, or intending revenge—are wanting in them; but all the rest, terminating purely in pain and pleasure, are, I think, to be found in all men. For we love, desire, rejoice, and hope, only in respect of pleasure; we hate, fear, and grieve, only in respect of pain: ultimately, all these passions are moved by things only as they appear to be the causes of pleasure and pain, or to have pleasure or pain [in] some way or other annexed to them. Thus we extend our hatred usually to the subject (at least, if a sensible or voluntary agent) which has produced pain in us, because the fear it leaves is a constant pain; but we do not so *constantly* love what has done us good, [1.] because pleasure operates not so strongly on us as pain; and [2.] because we are not so ready to have hope [that] it will do so again.

It is farther to be considered, that, in reference to the passions, the removal or lessening of a pain is considered and operates as a pleasure; and the loss or diminishing of a pleasure, as a pain.

Shame.—The passions too have, most of them, in most persons, operations on the body, and cause various changes in it; which, not being always sensible, do not make a necessary part of the idea of each passion. For, Shame, which is an uneasiness of the mind upon the thought of having done something which will lessen the valued esteem which others have for us, has not always *blushing* accompanying it.

These instances show how our ideas of the passions are got from sensation and reflection.—I would not be mistaken here, as if I meant this as a discourse of the passions; they are many more than those I have here named: and those I have taken notice of would each of them require a much larger and more accurate discourse. I have only mentioned these here, as so many instances of Modes of Pleasure and Pain resulting in our minds from various considerations of good and evil; and [to] show how the ideas we have of them are derived from Sensation and Reflection.

◆

CHAPTER XXI.

OF POWER.

This idea how got.—The mind being every day informed, by the senses, of the alteration of those Simple ideas it observes in things without, and taking notice how one comes to an end and ceases to be, and another begins to exist which was not before—reflecting also on what passes within itself, and observing a constant change of its ideas, sometimes by the impression of outward objects on the senses, and sometimes by the determination of its own choice—and concluding, from what it has so constantly observed to have been, that the like changes will for the future be made in the same things by like agents, and by the like ways—considers in one thing the possibility of having any of its simple ideas changed, and in another the possibility of making that change; and so comes by that idea which we call Power. Thus we say, fire has a *power* to melt gold; i. e. to destroy the consistency of its insensible parts, and consequently its hardness, and [to] make it fluid; and gold has a *power* to be melted. In which and the like cases, the Power we consider is in reference to the *change* of perceivable ideas: for we cannot observe any alteration to be made in, or operation upon, anything, but by the observable change of its sensible ideas [i. e. the ideas which its sensible qualities produce *in us*]; nor conceive any alteration to be made but by conceiving a change of some of its ideas [so caused *in us*].

Power active and passive.—Power thus considered is twofold; viz., as able to *make*, or able to *receive*, any change: the one may be called Active, and the other Passive Power. Whether matter be not wholly destitute of *active* power,—as its author, God, is truly above all *passive* power,—and whether the intermediate state of created spirits be not that alone which is capable of *both* active and passive power, may be worth consideration. I shall not now enter into that inquiry; my present business being not to search into the *original of* Power, but how we come by *the idea* of it. But since active powers make so great a part of our complex ideas of natural substances (as we shall see hereafter),—and I mention them as such, according to common apprehension,—yet they being not, perhaps, so truly active powers as our hasty thoughts are apt to represent them, I judge it not amiss, by this intimation, to direct our minds to the consideration of God and Spirits, for the clearest idea of Active Power.

Power includes relation.—I confess Power includes in it some kind of *relation*,—a relation to action or change; as, indeed, which of our ideas, of what kind soever, when attentively considered, does not? For our ideas of Extension, Duration, and Number, do they not all contain in them a secret *relation* of the parts? Figure and

Motion have something *relative* in them much more visibly. And sensible qualities, as colours and smells, &c., what are they but the *powers* of different bodies *in relation* to our Perception, &c.? And if considered in the things themselves, do they not depend on the bulk, figure, texture, and motion of the parts? All which include some kind of *relation* in them. Our idea, therefore, of Power, I think, may well have a place amongst other Simple Ideas, and be considered as one of them; being one of those that make a principal ingredient in our Complex ideas of Substances.

The clearest idea of active power had from spirit.—We are abundantly furnished with the idea of Passive Power, by almost all sorts of *sensible* things. In most of them we cannot avoid observing their sensible qualities, nay, their very substances, to be in a continual flux: and therefore with reason we look on them as liable still to the same change. Nor have we of Active Power (which is the more proper signification of the word *power*) fewer instances; since, whatever change is observed, the mind must collect a power somewhere, able to make that change, as well as a possibility in the thing itself to receive it. But yet, if we will consider it attentively, bodies, by our *senses*, do not afford us so clear and distinct an idea of active power, as we have from *reflection* on the operations of our minds. For, all power relating to action, and there being but two sorts of action whereof we have any idea, viz., Thinking and Motion, let us consider whence we have the clearest ideas of the powers which produce these actions. (1) Of Thinking, *body* affords us no idea at all: it is only from *reflection* that we have that. (2) Neither have we from that body any idea of the *beginning of motion*. A body at rest affords us no idea of any active power to move; and when it is set in motion itself, that motion is rather a passion than an action in it. For, when the ball obeys the stroke of a billiard-stick, it is not any action of the ball, but bare passion: also, when by impulse it sets another ball in motion that lay in its way, it only communicates the motion it had received from another, and loses in itself so much as the other received; which gives us but a very obscure idea of an active power of moving in body, whilst we observe it only to *transfer*, but not *produce*, any motion. For it is but a very obscure idea of power which reaches not the production of the action, but the continuation of the passion. For so is motion, in a body impelled by another; the continuation of the alteration made in it from rest to motion being little more an action, than the continuation of the alteration of its figure by the same blow is an action. The idea of the beginning of motion we have only from *reflection* on what passes in ourselves, where we find by experience, that, barely by willing it, barely by a thought of the mind, we can move the parts of our bodies which were before at rest. So that it seems to me, we have, from the observation of the operation of bodies by our senses, but a very imperfect, obscure idea of *active* power, since they afford us not any idea in themselves of the power to *begin* any action, either motion or thought.

Will and Understanding, two powers.—This, at least, I think evident, that we find in ourselves a power to begin or forbear, continue or end, several actions of our minds and motions of our bodies, barely by a thought or preference of the mind ordering, or, as it were, commanding the doing or not doing such or such a particular action. This Power which the mind has thus to order the consideration of any idea, or the forbearing to consider it, or to prefer the motion of any part of the body to its rest, and *vice versâ*, in any particular instance, is that which we call the Will. The actual exercise of that power, by directing any particular action or its forbearance, is that which we call *volition* or *willing*. The [performance or] forbearance of that action, consequent to such order or command of the mind, is called *voluntary;* and whatsoever action is performed without such a thought of the mind, is called *involuntary*. The Power of perception is that which we call the Understanding. Perception, which we make the act of the Understanding, is of three sorts:—(1) The perception of ideas in our minds. (2) The perception of the signification of signs. (3) The perception of the connexion or repugnancy, agreement or disagreement, that there is between any of our ideas. All these are attributed to the Understanding, or Perceptive Power; though it be the two latter only that use allows us to say we understand.

Faculty.—These Powers of the mind, viz., of *perceiving* and of *preferring*, are usually called by another name: and the ordinary way of speaking is, that the Understanding and Will are two Faculties of the mind; a word proper enough, if it be used, as all words should be, so as not to breed any confusion in men's thoughts by being supposed (as I suspect it has been) to stand for some real beings in the soul, that performed those actions of understanding and volition. For when we say, the Will is the commanding and superior Faculty of the soul; that it is or is not free; that it determines the inferior faculties; that it follows the dictates of the Understanding, &c.; though these and the like expressions, [used] by those that carefully attend to their own ideas, and conduct their thoughts more by the evidence of things than the sound of words, may be understood in a clear and distinct sense: yet I suspect, I say, that this way of speaking of *faculties* has misled many into a confused notion of so many distinct agents in us, [having] their several provinces and authorities; command[ing], obey[ing], and perform[ing] several actions, as so many distinct beings; which has been no small occasion of wrangling, obscurity, and uncertainty in questions relating to them.

Whence the ideas of liberty and necessity.—Every one, I think, finds in himself, a power to begin or forbear, continue or put an end to, several actions in himself. From the consideration of the extent of this power of the mind over the actions of the man, which every one finds in himself, arise the ideas of Liberty and Necessity.

Liberty, what.—All the actions that we have any idea of reducing themselves to these two, viz., Thinking and Motion, so far as a man has power to think or not to think, to move or not to move, according to the preference or direction of his own mind, so far is a man *free*. Wherever any performance or forbearance [is] not equally in a man's power; wherever doing or not doing will not equally follow upon the preference of his mind directing it; there he is not free, though perhaps the action may be *voluntary.* So that the idea of Liberty is the idea of *a power* in any agent to do or forbear any particular action, according to the determination or thought of the mind, whereby either of them is preferred to the other. Where either of them is not in the power of the agent, to be produced by him according to his volition, there he is not at liberty; that agent is under *necessity.* So that Liberty cannot be where there is no thought, no volition, no *will;* but there may be thought, there may be will, there may be *volition,* where there is no Liberty.

Supposes the understanding and will.—A tennis-ball, whether in motion by the stroke of a racket, or lying still at rest, is not by any one taken to be a free agent. If we inquire into the reason, we shall find it is, because we conceive not a tennis-ball to *think,* and consequently not to have any volition, or *preference* of motion to rest, or *vice versâ:* and therefore [it] has not liberty; is not a free agent: but its motion and rest come under our idea of *necessary,* and are so called. Likewise a man falling into the water (a bridge breaking under him) has not herein *liberty;* is not a free agent. For though he has volition, though he prefers his not falling to falling, yet the forbearance of that motion not being in his *power,* the stop or cessation of that motion follows not upon his *volition;* and therefore therein he is *not free.* So a man striking himself or his friend, by a convulsive motion of his arm which it is not in his power by volition, or the direction of his mind, to stop or forbear, nobody thinks he has, in this *liberty;* every one pities him, as acting by necessity and constraint.

Belongs not to volition.—Again: Suppose a man be carried, whilst fast asleep, into a room, where is a person he longs to see and speak with, and be there locked fast in, beyond his power to get out; he awakes, and is glad to find himself in so desirable company, which he stays willingly in; i. e. prefers his stay to going away, I ask, Is not this stay *voluntary?* I think nobody will doubt it; and yet, being locked fast in, it is evident he is not at liberty *not* to stay; he has not freedom to be gone. So that liberty is not an idea belonging to volition, or preferring; but to the person having *the power* of doing, or forbearing to do, according as the mind shall choose or direct. Our idea of Liberty reaches as far as that power, and no farther.

Voluntary, then, is not opposed to *necessary*, but to *involuntary.* For a man may *prefer* what he *can* do to what he cannot do,—the state he is in to its absence or change,—though necessity has made it in itself unalterable.

In short Liberty is—a power to act, or not to act, according as the mind directs. A power to direct the operative faculties to motion, or rest, in particular instances, is that which we call—the Will. That which in the train of our voluntary actions, determines the Will to any change of operation, is some present *uneasiness;* which is, or at least is always accompanied with, that of *desire.* Desire is always moved by evil, to fly it: because a total freedom from pain always makes a necessary part of our happiness; but every good, nay, every greater good, does not constantly move desire, because it may not make, or may not be taken to make, any necessary part of our happiness. For all that we desire, is only to be happy. But though this general desire of happiness operates constantly and invariably, yet the satisfaction of any particular desire can be suspended from determining the Will to any subservient action, till we have maturely examined, whether the particular apparent good, which we then desire, makes a part of our real happiness, or [is] consistent or inconsistent with it. The result of our judgment upon that examination is what ultimately determines the man; who could not be free if his Will were determined by anything but his own desire, guided by his own judgment. I know that Liberty by some is placed in an '*indifferency*' of the man, antecedent to the determination of his will. I wish they who lay so much stress on such an antecedent indifferency, as they call it, had told us plainly, whether this supposed indifferency be antecedent to the thought and judgment of the Understanding, as well as to the decree of the Will. For it is pretty hard to state it [as lying] *between* them; *i. e.* immediately *after* the judgment of the Understanding, and *before* the determination of the Will, because the determination of the will immediately follows the judgment of the understanding; and to place liberty in an indifferency, antecedent to the thought and judgment of the understanding, seems to me to place liberty in a state of darkness, wherein we can neither see nor say anything of it; at least it places it in a subject incapable of it, no agent being allowed capable of liberty, but in consequence of thought and judgment. I consent to say, with those that love to speak so, that liberty is placed in indifferency; but it is an indifferency which *remains after* the judgment of the understanding; even after the determination of the will: and that is an indifferency not of the man (for after he has once judged which is best, viz. to do, or forbear, he is no longer indifferent), but an indifferency of the *operative powers* of the man, which, remaining equally able to operate, or to forbear operating, *after*, as *before*, the decree of the will, are in a state, which, if one pleases, may be called indifferency; and as far as this indifferency reaches, a man is free, and no farther; *v. g.* I have the ability to move my hand, or to let it rest; that operative power is indifferent to move, or not to move my hand; I am then in that respect perfectly free. My will determines that operative power to rest; I am yet free; because the indifferency of that my operative power to act, or not to act, still remains; the power of moving my hand is not at all impaired by the determination of my will, which at present orders rest; the indifferency of that power to act or not to act is just as it was before, as will appear, if the will puts it to the trial, by ordering the contrary. But if, during the rest of my hand, it be seized by a sudden palsy, the indifferency of that operative power is gone, and with it my liberty; I have no longer freedom in that respect, but am under a necessity of letting my hand rest. On the other side, if my hand be put into motion by a convulsion, the indifferency of that operative faculty is taken away by that motion, and my liberty in that case is lost; for I am under a necessity of having my hand move. I have added this, to show *in what sort of* indifferency liberty seems to me to consist, and not in any other, real or imaginary.

I have said above, that we have ideas but of two sorts of action, viz., Motion and Thinking. These, in truth, though called and counted *actions*, yet, if *nearly* considered, will not be found to be always perfectly so. For, if I mistake not, there are instances of both kinds, which, upon due consideration, will be found rather *passions* than actions; and consequently so far the effects barely of passive powers in those subjects, which yet on their accounts are thought agents. For in these instances, the substance that hath motion or thought receives the impression, where it is put into that action purely from without, and so acts merely by the capacity it has to receive such an impression from some external agent; and such a power is not properly an active power, but a mere passive capacity in the subject. Sometimes the substance or agent puts itself into action by its own power; and this is *properly active* power. Whatsoever modification a substance has, whereby it produces any effect, *that* is called action; *v.g.* a solid substance by motion operates on, or alters the sensible ideas of, another substance; and therefore this modification of motion we call action. But yet this motion in that solid substance is, when rightly considered, but a passion, if it received it only from some external agent. So that the active power of motion is in no substance which cannot *begin* motion in itself, or in another substance, when at rest. So likewise, in thinking, a power to receive ideas or thoughts, from the operation of any external substance, is called a power of thinking: but this is but a *passive power*, or capacity. But to be able to bring into view ideas out of sight at one's own choice, and to compare which of them one thinks fit, this is *an active power*. This reflection may be of some use to preserve us from mistakes about powers and actions, which grammar and the common frame of languages may be apt to lead us into; since what is signified by verbs that grammarians call active does not always signify action; *v. g.* this proposition, 'I see the moon or a star,' or 'I feel the heat of the sun,' though expressed by a verb active, does not signify any action in me, whereby I operate on those substances; but the *reception* of the ideas of light, roundness, and heat, wherein I am not active, but barely passive, and cannot in that position of my eyes or body avoid receiving them. But when I turn my eyes another way, or remove my body out of the sunbeams, I am properly active; because, of my own choice, by a power within myself, I put myself into that motion. Such an action is the product of active power.

And thus I have, in a short draught, given a view of our *original* ideas, from whence all the rest are derived, and of which they are made up; which if I would consider as a philosopher, and examine on what causes they depend, and of what they are made, I believe they all might be reduced to these very few primary and original ones, viz., Extension, Solidity, Mobility, or the Power of being moved; which by our senses we receive from body: Perceptivity, or the power of perception or thinking; Motivity, or the power of moving; which by reflection we receive from our minds. I use these two new words, to avoid the danger of being mistaken in the use of those which are equivocal. To which if we add Existence, Duration, Number, which belong both to the one and to the other, we have, perhaps, all the original ideas, on which the rest depend.

◆

CHAPTER XXII.

OF MIXED MODES.

Mixed modes, what.—We are now, in the next place, to consider those we call Mixed Modes: such are the complex ideas we mark by the names obligation, drunkenness, a lie, &c., which consist of several combinations of simple ideas of *different* kinds. These Mixed Modes, being such combinations of simple ideas as are not looked upon to be characteristic marks of any real *beings* that have a steady *existence*, but scattered and independent ideas put together by the mind, are *thereby* distinguished from the complex ideas of Substances.

Made by the mind.—That the mind, in respect of its simple ideas, is wholly passive, and receives them all from the existence and operations of things, such as Sensation or Reflection offers them, without being able to *make* any one idea, experience shows us. But if we attentively consider these ideas I call Mixed Modes [which] we are now speaking of, we shall find their original quite different. The mind often exercises an *active* power in making these several combinations: for, it being once furnished with simple ideas, it can put them together in several compositions, and so make variety of complex ideas, without examining whether they exist so together in nature. And hence, I think, it is that these ideas are called *notions;* as if they had their original and constant existence more in the *thoughts* of men, than in the *reality* of things; and to form such ideas it sufficed [1.] that the mind put the parts of them together, and [2.] that they were *consistent* in the Understanding, without considering whether they had any real being: though I do not deny but several of them might be taken from *observation*, and the existence of several simple ideas so combined as they are put together in the Understanding. For the man who first framed the idea of *hypocrisy* might have either taken it at first from the observation of one who made show of good qualities which he had not; or else have framed that idea in his mind without having any such pattern to fashion it by. For it is evident that, in the beginning of languages and societies of men, several of those complex ideas, which were consequent to the constitutions established amongst them, must have been in the minds before they existed anywhere else; and that many names that stood for such complex ideas were in use, and so those ideas framed, *before* the combinations they stood for ever existed.

Sometimes got by the explication of their names.—Indeed, now that languages are made, and abound with words standing for such combinations, a usual way of getting these complex ideas is by the *explication* of those terms that stand for them. For, consisting of a company of simple ideas combined, they may, by words standing for those simple ideas, be represented to the mind of one who understands those words, though that complex combination of simple ideas were never offered* to his mind by the real existence of things. Thus a man may come to have the idea of *sacrilege* or *murder*, without ever seeing either of them committed.

The name ties the parts of mixed modes into one idea.—Every Mixed Mode consisting of many distinct simple ideas, it seems reasonable to inquire *whence* it has its *unity;* and how such a precise multitude comes to make but one idea, since that combination does not always exist together in nature? To which I answer, It is plain it has its unity from an act of the mind combining those several simple ideas together, and considering them as one complex one consisting of those parts; and the *mark* of this union, or that which is looked on generally to complete it, is *one name* given to that combination. For it is by their names that men commonly regulate their account of their distinct species of Mixed Modes; seldom allowing or considering any number of simple ideas to make one complex one, but such collections as there [are] names for. Thus, though the killing of an old man be as fit in nature to be united into one complex idea as the killing a man's father; yet, there being no name standing precisely for the one, as there is the name of *parricide* to mark the other, it is not taken for a particular complex idea, nor a distinct species of action from that of killing a young man, or any other man.

The cause of making mixed modes.—What *occasions* men to make several combinations of simple ideas into distinct and, as it were, settled modes, and neglect others which, in the nature of things themselves, have as much an aptness to be combined and make distinct ideas, we shall find to be the *end of language;* which being to mark or communicate men's thoughts to one another with all the dispatch that may be, they usually make such collections of ideas into complex modes, and affix names to them, as they have frequent *use* of in their way of living and conversation; leaving others which they have but seldom an occasion to mention loose and without names that tie them together; they rather choosing to *enumerate* (when they have need) such ideas as make them up, by the particular names that stand for them, than to trouble their memories by multiplying complex ideas with names to them, which they shall seldom or never have any occasion to make use of.

---

* Some Editions read 'afforded.'—ED.

Why words in one language have none answering in another.—This shows us how it comes to pass, that there are in every language many particular words which cannot be *rendered* by any single word of another. For the several fashions, customs, and manners of one nation, making several combinations of ideas familiar and necessary in one, which another people have never had any occasion to make, or perhaps so much as take notice of, names come, of course, to be annexed to them, to avoid long periphrases in things of daily conversation; and so they become so many distinct complex ideas in their minds. Thus ὀστρακισμὸς amongst the Greeks, and *proscriptio* amongst the Romans, were words which other languages had no names that exactly answered, because they stood for complex ideas which were not in the minds of the men of other nations. Where there was no such custom, there was no notion of any such actions; no *use* of such combinations of ideas as were united by those terms: and therefore in other countries there were no names for them.

And languages change.—Hence also we may see the reason why languages constantly change, take up new, and lay by old terms. Because change of customs and opinions bringing with it new combinations of ideas which it is necessary frequently to think on and talk about, new names, to avoid long descriptions, are annexed to them, and so they become new species of complex modes. What a number of different ideas are by this means wrapped up in one short sound, and how much of our time is thereby saved, any one will see who will but take the pains to enumerate all the ideas that either *reprieve* or *appeal* stand[s] for; and instead of either of those names use a periphrasis to make any one understand [its] meaning.

Mixed modes, where they exist.—Mixed modes have not so much anywhere the appearance of a constant and lasting existence as in their *names:* which are therefore, in [this] sort of ideas, very apt to be taken for the ideas themselves. For if we should inquire *where* the idea of a *triumph* or *apotheosis* exists, it is evident they could neither of them exist altogether anywhere in the things themselves, [as] being actions that required time to their performance; and so could never all exist together: and as to the minds of men, where the ideas of these actions are supposed to be lodged, they have there too a very uncertain existence; and therefore we are apt to annex them to the names that excite them in us.

How we get the ideas of mixed modes.—There are therefore *three* ways whereby we get the complex ideas of Mixed Modes: (1) By Experience, and observation of things themselves: thus by seeing two men wrestle or fence, we get the idea of wrestling or fencing. (2) By Invention, or voluntary putting together of several simple ideas in our minds: so he that first invented printing, or etching, had an idea of it in his mind before it ever existed. (3) By Explaining (which is the most usual way) the names of actions we never saw, or notions we cannot see; and by enumerating and thereby, as it were, setting before our imaginations all those ideas which go to the making them up, and are the constituent parts of them. Thus the mixed mode which the word *lie* stands for, is made of these simple ideas: (1) Articulate sounds. (2) Certain ideas in the mind of the speaker. (3) Those words the signs of those ideas. (4) Those signs put together by affirmation or negation, otherwise than the ideas they stand for are in the mind of the speaker. Nor shall we have reason to fear that the mind is hereby stinted to too scanty a number of ideas, if we consider what an inexhaustible stock of Simple Modes *number* and *figure* alone afford us. How far, then, Mixed Modes, which admit of the various combinations of different simple ideas and their infinite modes, are from being few and scanty, we may easily imagine.

Motion, thinking, and power have been most modified.—It is worth our observing which of all our Simple Ideas have been most *modified*, and [have] had most mixed modes made out of them, with names given to them; and those have been these three: Thinking, and Motion (which are the two ideas which comprehend in them all *action*); and Power, from whence these actions are conceived to flow. For, *action* being the great business of mankind, and the whole matter about which all laws are conversant, it is no wonder that the several modes of thinking and motion should be taken notice of, the ideas of them observed and laid up in the memory, and have names assigned to them; without which laws could be but ill made, or vice and disorder repressed. Nor could any communication be well had amongst men without such complex ideas, with names to them: and therefore men have settled names and supposed settled ideas in their minds of modes of actions distinguished by their causes, means, objects, ends, instruments, time, place, and other circumstances, and also of their powers fitted for those actions; which power or ability in man of doing any thing, when it has been acquired by frequent doing the same thing is that idea we name *habit;* when it is forward and ready upon every occasion to break into action, we call it *disposition.*

Several words seeming to signify action signify but the effect.—Power being the source from whence all action proceeds, the substances wherein these powers are, when they exert this power into act, are called *causes;* and the *substances* which thereupon are produced, or the simple *ideas* which are introduced into any subject by the exerting of that power, are called *effects.* The efficacy whereby the new substance, or idea, is produced is called, in the subject exerting that power, *action;* but in the subject wherein any simple idea is changed or produced it is called *passion:* which efficacy, however various, and the effects almost infinite, yet we can, I think, conceive it, in *intellectual* agents, to be nothing else but Modes of Thinking and Willing; in corporeal agents, nothing else but Modifications of Motion: [although] many words which seem to express some action, signify nothing of the action, or *modus operandi*, but barely the effect with some circumstances of the subject wrought on, or cause operating; v. g. creation, annihilation, contain in them no idea of the action or manner whereby they are produced, but barely of the cause, and the thing done. And when [we say] 'cold freezes water,' though the word *freezing* seems to import some action, yet truly it signifies nothing but the effect; viz. that water, that was before fluid, is become hard and consistent: without containing any idea of the action whereby it is done.

Mixed modes made also of other ideas.—[But] though Power and Action make the greatest part of Mixed Modes, marked by *names*, and familiar in the minds and mouths of men, yet other simple ideas, and their several combinations, are not excluded; much less, I think, will it be necessary for me to enumerate all the mixed modes which have been settled, with names to them. That would be to make a dictionary of the greatest part of the words made use of in divinity, ethics, law, and politics, and several other sciences. All that is requisite to my present design is, to show what sort of ideas those are which I call Mixed Modes; how the mind comes by them; and that they are compositions made up of Simple ideas got from Sensation and Reflection.

◆

CHAPTER XXIII.

OF OUR COMPLEX IDEAS OF SUBSTANCES.

Ideas of substances, how made.—The mind, being furnished with a great number of the Simple Ideas conveyed in by the Senses, as they are found in exterior things, or by Reflection on its own operations, takes notice, also, that a certain number of these simple ideas go *constantly together;* which, being *presumed* to belong to one thing, and words being suited to common apprehensions and made use of for quick dispatch, are called, so united in one subject, by one name. [These], by inadvertency, we are apt afterward to talk of and consider as one simple idea, which, indeed, [are] a complication of many ideas together: because, as I have said, not imagining *how* these simple ideas can subsist by themselves, we accustom ourselves to suppose some *substratum wherein* they subsist, an from which they result: which therefore we call Substance.

Our idea of substance in general.—So that if any one will examine his notion of pure Substance *in general*, he will find he has no other idea of it [than] only a supposition of he knows not what *support of such qualities*

[as] are capable of producing simple ideas in us; which *qualities* are commonly called Accidents. If any one should be asked, "What is the subject wherein colour or weight *inheres?*" he would have nothing to say but, "The solid extended parts." And if [it] were demanded, "What is it that solidity and extension *inhere* in," he would not be in a much better case than the Indian, who saying that the world was supported by a great elephant, was asked "What the elephant rested on?" to which his answer was, "A great tortoise:" but being again pressed to know what gave support to the broad-backed tortoise, replied, "*Something*,—he knew not what." The idea, then, to which we give the *general* name Substance, being nothing but the supposed, but unknown, support of those qualities we find existing, which we imagine cannot subsist *sine re substante*, 'without something to support them,' we call that support *substantia;* which, according to the import of the word, is 'standing under,' or 'upholding.'

Of the sorts of substances.—An obscure and relative idea of Substance *in general* being thus made, we come to have the ideas of particular *sorts* of Substances, by collecting such combinations of simple ideas as are, by experience and observation of men's senses, taken notice of to exist together, and are therefore supposed to flow from the particular internal constitution or unknown *essence* of that Substance. Only we must take notice, that our complex ideas of Substances, besides all these simple ideas [of which] they are made up, have always the confused idea of *something* to which they belong, and *in* which they *subsist:* and therefore, when we speak of any sort of substance, we say it is a thing having such or such qualities; as, Body is a thing that is extended, figured, and capable of motion; Spirit, a thing capable of thinking; and so hardness, friability, and power to draw iron, we say, are qualities to be found in a loadstone. These and the like fashions of speaking intimate that the Substance is always supposed [to be] *something besides* the extension, figure, solidity, motion, thinking, or other observable [qualites], though we know not what it is.

No clear idea of substance in general.—Hence, when we talk or think of any particular *sort* of corporeal Substances, as horse, stone, &c., though the idea we have of [any] of them be but the complication or collection of those several simple ideas of sensible qualities which we find united in the thing called 'horse' or 'stone;' yet because we cannot conceive *how* they should subsist alone, [or] one in another, we suppose them existing in, and supported by, some *common subject;* which support we denote by the name Substance, though it be certain we have no clear or distinct idea of that *thing* we suppose a support.

As clear an idea of spirit as body.—The same happens concerning the operations of the Mind; viz., thinking, reasoning, fearing, &c., which we—concluding [them] not to subsist of themselves, nor apprehending how they can belong to body, or be produced by it—are apt to think the actions of some other Substance, which we call Spirit: whereby yet it is evident, that having no other idea or notion of matter [than as being] *something* wherein those many sensible qualities which affect our senses do subsist—by supposing a Substance wherein thinking, knowing, doubting, and a power of moving, &c., do subsist, we have as clear a notion of the *substance* of Spirit as we have of [that of] Body: the one being supposed to be (without [our] knowing *what* it is) the *substratum* to those simple ideas [which] we have from without; and the other supposed (with a like ignorance of *what* it is) to be the *substratum* to those operations which we experi[ence] in ourselves within. It is plain, then, that the idea of *corporeal* Substance in Matter is as remote from our conceptions and apprehensions as that of *spiritual* Substance, or Spirit; and, therefore, from our not having any notion of the *substance* of Spirit, we can no more conclude its non-existence, than we can, for the same reason, deny the existence of Body: it being as rational to affirm there is no *body*, because we have no clear and distinct idea of the *substance* of matter, as to say there is no *spirit*, because we have no clear and distinct idea of the *substance* of a Spirit.

Power, a great part of our complex ideas of substances.—He has the [most] perfect idea of any of the particular *sorts* of Substances, who has gathered and put together *most* of those simple ideas which do exist in it; among which are to be reckoned its active Powers and passive Capacities; which, though not simple ideas, yet in this respect, for brevity's sake, may conveniently enough be reckoned amongst them. Thus, the *power* of drawing iron is one of the ideas of the complex one of that substance we call a 'loadstone,' and a *power* to be so drawn is a part of the complex one we call 'iron;' which powers pass for inherent qualities in those subjects: because every substance, being as apt, by the powers we observe in it, to change some sensible qualities *in other* subjects, as it is to produce *in us* those simple ideas which we receive immediately from it, does, by those new sensible qualities, introduced into other subjects, discover to us those *powers* which do thereby *mediately* affect our senses, as regularly as its sensible qualities do *immediately:* v. g. we, by our senses, perceive in fire its heat and colour; which are, if rightly considered, nothing but *powers* in it to produce those ideas *in us:* we also, by our senses, perceive the colour and brittleness of charcoal, whereby we come by the knowledge of another power in fire, which it has to change the colour and consistency of *wood.* By the former, fire *immediately*, by the latter it *mediately*, discovers to us these several powers, which therefore we look upon to be a part of the qualities of fire, and so make them a part of the complex idea of it. For all those powers that we take cognizance of, terminating only in the alteration of some sensible qualities in those subjects on which they operate, and so making them exhibit to us new sensible ideas—therefore it is that I have reckoned these powers amongst the simple ideas, which make the complex ones of the *sorts* of Substances; though these powers, considered in themselves, are truly complex ideas. And in this sense I, [would] be understood, when I name any of these *potentialities* amongst the simple ideas which we recollect in our minds when we think of particular substances. For the *powers* that are severally in them are necessary to be considered, if we will have true, distinct notions of the several *sorts* of Substances.

And why.—Nor are we to wonder that Powers make a great part of our complex ideas of Substances, since their Secondary Qualities are those which, in most of them, serve principally to distinguish Substances one from another, and commonly make a considerable part of the complex idea of the several sorts of them. For, our senses failing us in the discovery of the bulk, texture, and figure of the minute parts of bodies, on which their real constitutions and differences depend, we are fain to make use of their Secondary Qualities, as the characteristic notes and marks whereby to frame ideas of them in our minds, and distinguish them one from another. All which, as has been shown, are nothing but bare *powers*. For the colour and taste of opium are, as well as its soporific or anodyne virtues, mere powers *depending on* its Primary Qualities, whereby it is fitted to produce different operations on different parts of our bodies.

Three sorts of ideas make our complex ones of substances.—The ideas that make our complex ones of *corporeal* Substances are of these three sorts. *First*, The ideas of the Primary Qualities of things which are discovered by our senses, and are in them even when we perceive them not: such are the bulk, figure, number, situation, and motion of the parts of bodies, which are really in them, whether we take notice of them or [not]. *Secondly*, The *sensible* Secondary Qualities which, depending on these, are nothing but the *powers*, those Substances have to produce several ideas in us by our senses; which ideas are not *in* the things themselves otherwise than as any thing is *in* its *cause*. *Thirdly*, The aptness we consider in any Substance to *give* or *receive* such alterations of Primary Qualities as that the substance so altered should produce in us different ideas from [those which] it did before; these are called *active* and *passive* Powers: all which powers, as far as we have any notice or notion of them, terminate only in *sensible* simple ideas. For, whatever alteration a loadstone has the power to make in the *minute particles* of iron, we should have no notion of *any* power it had *at all* to operate on iron, did not its sensible motion discover it; and I doubt not but there are a thousand changes that [such] bodies [as] we daily handle have a power to cause in one another, which we never suspect, because they never appear in sensible effects.

The now secondary qualities of bodies would disappear if we could discover the primary ones of their minute parts.— Had we senses acute enough to discern the minute particles of bodies, and the real constitution on which their sensible qualities depend, I doubt not but they would produce quite different ideas in us; and that which is now the yellow colour of gold would then disappear, and instead of it we should see an admirable texture of parts of a certain size and figure. This microscopes plainly discover to us; for, what to our naked eyes produces a certain colour is, by [the] thus augmenting the acuteness of our senses, discovered to be quite a different thing; and the thus altering, as it were, the *proportion* of the bulk of the minute parts of a coloured object to our usual sight produces different ideas from [those which] it did before. Thus sand, or pounded glass, which is opaque and white to the naked eye, is pellucid in a microscope; and a hair seen this way loses its former colour, and is in a great measure pellucid, with a mixture of some bright sparkling colours, such as appear from the refraction of diamonds and other pellucid bodies. Blood to the naked eye appears all red; but by a good microscope, wherein its lesser parts appear, shows only some few globules of red, swimming in a pellucid liquor; and how these red globules would appear, if glasses could be found that could yet magnify them one thousand or ten thousand times more, is uncertain.

Our faculties of discovery suited to our state.—The infinite[ly] wise Contriver of us and all things about us has fitted our senses, faculties, and organs, to the conveniences of life, and the business we have to do here. We are able by our senses to know and distinguish things, and to examine them so far as to apply them to our *uses*, and [in] several ways to accommodate the exigencies of this life. We have insight enough into their admirable contrivances and wonderful effects to admire and magnify the wisdom, power, and goodness of their Author. Such a Knowledge as this, which is suited to our present condition, we *want* not faculties to attain. But it appears not that God intended we should have a perfect, clear, and adequate knowledge of them: *that*, perhaps, is not in the comprehension of *any* finite being. We are furnished with faculties (dull and weak as they are) to discover enough in the creature to lead us to the knowledge of the Creator, and of our duty; and we are fitted well enough with abilities to provide for the conveniences of living. These [ends] are our *business* in this world. But were our senses altered, and made much quicker and [more] acute, the appearance and outward scheme of things would have quite another face to us; and would be inconsistent with our being—or, at least, *well*-being—in this part of the universe which we inhabit. He that considers how little our constitution is able to bear a remove into parts of this air not much higher than that we commonly breathe, will have reason to be satisfied that, in this globe of earth allotted for our mansion, the all-wise Architect has suited our organs, and the bodies that are to affect them, one to another. If our sense of hearing were but a thousand times quicker than it is, how would a perpetual noise distract us! and we should, in the quietest retirement, be less able to sleep or meditate than in the middle of a sea-fight. Nay, if that most instructive of our senses, seeing, were in any man a thousand or a hundred thousand times more acute than it is now by the best microscope, things several millions of times less than the smallest object of his sight now would then be visible to his naked eyes; and so he would come nearer to the discovery of the texture and motion of the minute parts of corporeal things, and in many of them probably get ideas of their internal constitutions: but then he would be in a quite different world from other people; nothing would appear the same to him [as to] others; the visible qualities of every thing would be different. So that I doubt whether he and the rest of men could discourse concerning the objects of sight, or have any communication about colours; their appearances being so wholly different. And perhaps such a quickness and tenderness of sight could not endure bright sunshine, or so much as open day-light; nor take in [more than] a very small part of any object at once; and that, too, only at a very near distance. He that was sharp-sighted enough to see the configuration of the minute particles of the spring of a clock, and observe upon what peculiar structure and impulse its *elastic motion* depends, would no doubt discover something very admirable. But if eyes so framed could not view *at once* the hand and the characters of the hour-plate, and thereby at a distance see what o'clock it was, their owner could not be much benefited by that acuteness; which, whilst it discovered the secret *contrivance* of the parts of the machine, made him lose its *use*.

[In fine] the *primary* ideas we have peculiar to Body as contra-distinguished [from] Spirit, are the Cohesion of *solid*, and consequently *separable*, parts, and a Power of *communicating motion* by impulse: for Figure is but the consequence of finite extension.

The ideas we have belonging and peculiar to Spirit are Thinking and Will (or a power of putting body into motion by thought); and, which is consequent to it, Liberty.

The ideas of Existence, Duration, and Mobility, are common to them both.

In the *communication* of motion by impulse, wherein as much motion is lost to one body as is got to [an] other, we can have no other conception but of the passing of motion out of one body into another; which, I think, is as obscure and [in]conceivable as how our minds move or stop our bodies by thought; which we every moment find they do. The *increase* of motion by impulse, which is observed or believed sometimes to happen, is yet harder to be understood. We have by daily experience clear evidence of motion produced both by impulse and by thought; but the manner *how* hardly comes within our comprehension: we are equally at a loss in both. So that, however we consider motion, and its communication either from body or spirit, the idea which belongs to spirit is at least as clear as that which belongs to body. And if we consider the active power of moving—or, as I call it, motivity—it is much clearer in Spirit than Body; since two bodies, placed by one another at rest, will never afford us the idea of a *power* in the one to move the other, but by a *borrowed* motion: whereas the mind every day affords ideas of an active power of moving of bodies; and therefore it is worth our consideration, whether *active* power be not the proper attribute of [pure] Spirit, and *passive* power of Matter. Hence may be *conjectured*, that *created* Spirits are [alone] both active and passive.

But whichever of these ideas be clearest—that of Body or Spirit—this is evident, that the simple ideas that make them up are no other than what we have received from Sensation or Reflection; and so is it of all our other ideas of Substances; [and] even of GOD.

Idea of God.—For if we examine the idea we have of the incomprehensible Supreme Being, we shall find that we come by it [in] the same way; and that the complex ideas we have both of God and separate spirits are made up of the simple ideas we receive from Reflection: v. g. having, from what we experi[ence] in ourselves, got the ideas of Existence and Duration, of Knowledge and Power, of Pleasure and Happiness, and of several other

Qualities and Powers which it is better to have than to be without—when we would frame an idea the most suitable we can to the Supreme Being, we *enlarge* every one of these with our idea of Infinity; and so, putting them together, make our complex idea of God.

And thus we have seen what kind of ideas we have of Substances of all kinds; wherein they consist, and how we come by them.

◆

CHAPTER XXIV.

OF COLLECTIVE IDEAS OF SUBSTANCES.

One idea.—Besides these complex ideas of several Single Substances, as of man, horse, gold, &c., the mind has also complex Collective ideas of Substances; which I so call, because such ideas are made up of many particular Substances considered together, as united into *one* idea, and which so joined are *looked on* as one; v. g. the idea of such a collection of men as make an army, though consisting of a great number of distinct Substances, is as much one idea as the idea of a man: and the great collective idea of all [earthly] bodies whatsoever, signified by the name *world*, is as much one idea as the idea of any the least particle of matter in it; it sufficing to the *unity* of any idea, that it be considered as one representation or picture, though made up of ever so many particulars.

Made by the power of composing in the mind.—These Collective ideas of Substances the mind makes by its power of Composition, and uniting, severally, either simple or complex ideas into one; as it does by the same faculty make the complex ideas of particular Substances, consisting of an aggregate of divers simple ideas united in one Substance.

All artificial things are collective ideas.—Amongst such collective ideas are to be counted [those of] most artificial things; at least [of] such of them as are made up of distinct Substances: and in truth, if we consider all these Collective ideas aright, as army, constellation, &c., as they are united into so many single ideas, they are but the artificial draughts of the mind, bringing things very remote, and independent [of] one another, into one view; the better to contemplate and discourse of them [when] united into one conception, and signified by one name. For there are no things so remote, nor so contrary, which the mind cannot, by this art of *composition*, bring into one idea, as is [evident] in that signified by the name—*Universe.*

◆

CHAPTER XXV.

OF RELATION.

Relation, what.—When the mind so considers one thing, that it does, as it were, bring it to and set it by another, and carry its view from one to the other; this is—as the words import—Relation and *respect;* and the *denominations* given to positive things, intimating that respect, and serving as marks to lead the thoughts beyond the subject itself denominated to something distinct from it, are what we call *relatives;* and the things so brought together [we call] *related.* Thus, when the mind considers Caius as such a positive thing, it takes nothing into that idea but what really exists in Caius; v. g. when I consider him as a man, I have nothing in my mind but the complex idea of the *species* man. So likewise, when I say, 'Caius is a white man,' I have nothing but the bare consideration of a man who has that white colour. But when I give Caius the name *husband,* I intimate some *other person;* and when I give him the name *whiter* I intimate some *other thing:* in both cases my thought is led to something *beyond* Caius; and there are *two* things brought into consideration. And since any idea, whether Simple or Complex, may be the occasion why the mind thus brings two things together, and, as it were, takes a view of them at once, though still considered as distinct; therefore *any* of our ideas may be the *foundation* of Relation. As in the above-mentioned instance, the contract and ceremony of marriage with Sempronia [are] the occasion of the denomination or relation of *husband;* and the colour *white* the occasion why he is said to be *whiter* than [suppose] freestone.

Relations without correlative terms not easily perceived.—These, and the like Relations, expressed by relative terms that have others answering them with a *reciprocal* intimation, as father and son, cause and effect, are very obvious to every one; and everybody, at first sight, perceives the relation. But where languages have failed to give *correlative names,* there the Relation is not always so easily taken notice of. [Magistrate] is, no doubt, a relative name as well as [husband]: but in languages where this and the like words have not a correlative term, there people are not so apt to take them to be so; as wanting that evident *mark* of relation which is between correlatives, which seem to explain one another, and not to be able to exist, but together. Hence it is that many of those names, which, duly considered, do include evident relations, have been called External Denominations. But all names, that are more than empty sounds, must signify some idea which is either [1.] in the thing to which the name is applied (and then it is positive, and is looked on as united to and existing in the thing to which the denomination is given): or else [2.] it arises from the *respect* the mind finds in it to something distinct from it, with which it considers it; and then it includes a Relation.

Some seemingly absolute terms contain relations.—Another sort of relative terms there is [viz., those] which are not looked on to be either relative, or so much as External Denominations; [but] which yet, under the form and appearance of signifying something *absolute* in the subject, do conceal a tacit, though less observable Relation. Such are the seemingly positive terms of old, great, imperfect, &c.

Relation different from the things related.—This farther may be observed, that the ideas of Relation may be the same in men who have far different ideas of the *things* that are related, or that are thus compared; v. g. those who have far different ideas of a *man* may yet agree in the notion of a *father;* which is a notion *superinduced* to the substance or man, and refers only to an act [or condition] of that thing called *man*, let man be what it will.

Change of relation may be without any change in the subject.—The nature therefore of Relation consists in the referring or comparing two things one to another: from which comparison one or [each] comes to be denominated. And if either of those things be removed or cease to be, the *relation* ceases, and the denomination consequent to it; though the other receive in itself no alteration at all: v. g. Caius, whom I consider to-day as a father, ceases to be so to-morrow, only by the death of his son, without any alteration made in himself. Nay, barely by the mind's changing the *object* to which it compares anything, the same thing is capable of having contrary denominations at the same time: v. g. Caius, compared to several persons, may truly be said to be older and younger, stronger and weaker, &c.

All things capable of relation.—Concerning Relation in general, these things may be considered :—

First, That there is no one thing, whether Simple Idea, Substance, Mode, or Relation, or *name* of [any] of them, which is not capable of almost an infinite number of considerations in reference to other things; and therefore this makes no small part of men's thoughts and words: v. g. one single man may at once be concerned in and sustain all these following relations, and many more: viz., father, brother, son, grandfather, grandson, father-in-law, son-in-law, husband, friend, enemy, subject, general, judge, patron, client, professor, European, Englishman, islander, servant, master, possessor, captain, superior, inferior, bigger, less, older, younger, contemporary, like, unlike, &c., to an almost infinite number: he being capable of as many relations as there can be occasions of comparing him to other things, in any manner of agreement, disagreement, or respect whatsoever.

The ideas of relations often clearer than of the subjects related.—*Secondly*, Though Relation be not contained in the real existence of things, but [in] something extraneous and superinduced; yet the ideas which relative words stand for are often *clearer* and more distinct than those of substances to which they belong. The notion we have of a *father* or *brother* is a great deal clearer and more distinct than that we have of a *man;* or—*paternity* is a thing whereof it is easier to have a clear idea than *humanity:* and I can much easier conceive what a *friend* is, than what God [is]. Because the knowledge of *one action*, or *one simple idea*, is oftentimes sufficient to give the notion of a Relation: but to the knowing of any substantial Being, an *accurate collection* of sundry ideas is necessary. A man, if he compare two things together, can hardly be supposed not to know *what it is wherein* he compares them: so that when he compares any things together, he cannot but have a very clear idea of that relation. The ideas, then, of Relations are capable *at least* of being *more* perfect and distinct in our minds than those of Substances. Because it is commonly hard to know *all* the simple ideas which are *really in* any Substance, but for the most part easy enough to know the simple ideas that make up any Relation I think on, or have a name for : v.g. comparing two men, in reference to one common parent, it is very easy to frame the idea of *brothers*, without having yet the perfect idea of *man*. For, significant relative words, as well as others, standing only for *ideas*—and those being all either simple, or made up of simple ones—it suffices for the knowing the precise idea the relative term stands for, to have a clear conception of that which is the *foundation* of the relation; which may be done without having a perfect and clear idea of the thing it is attributed to.

Relations all terminate in simple ideas.—*Thirdly*, Though there be a great number of considerations wherein things may be compared one with another, and so a multitude of Relations; yet, they all terminate in, and are concerned about, those simple ideas either of Sensation or Reflection, which I think to be the whole materials of all our Knowledge. To clear this, I shall show it [1.] in the *most considerable* Relations that we have any notion of; and [2.] in some that seem to be the *most remote* from Sense or Reflection.

Terms leading the mind beyond the subject denominated are relative.—*Fourthly*, Relation being the considering of one thing with another which is *extrinsic* to it, it is evident that all *words* that necessarily lead the mind to any other ideas than are supposed really to *exist in* that thing to which the word is applied are *relative* words: v. g. ([while the terms] a man, black, merry, thoughtful, thirsty, angry, extended—these and the like—are all *absolute*, because they neither signify nor intimate anything but what does or is supposed really to *exist in* the man thus denominated) father, brother, king, husband, blacker, merrier, &c., are words which, together with the thing they denominate, imply also something else separate [from] and exterior to the existence of that thing.

I shall now proceed to show [by] some instances, [1.] how all the ideas we have of Relation are made up (as others are) only of *simple* ideas; and [2.] that they all, how *refined* or *remote* from sense soever they seem, terminate at last in Simple ideas. I shall begin with *the most comprehensive* Relation, wherein all things that do or can exist are concerned; and that is the Relation of Cause and Effect.

◆

CHAPTER XXVI.

OF CAUSE AND EFFECT, AND OTHER RELATIONS.

Whence their ideas got.—In the notice that our senses take of the *constant vicissitude* of things, we cannot but observe that several particular qualities and substances *begin* to exist; and that they *receive* this their existence from the due application and operation of some other being. From this observation we get our ideas of Cause and Effect. That which produces any Simple or Complex idea we denote by the general name Cause; and that which is produced, Effect. Thus, finding in that substance which we call wax [that] *fluidity*, which is a simple idea that was not in it before, is constantly produced by the application of a certain degree of heat, we call the simple idea of heat, *in relation to* fluidity in wax, *the cause* of it, and fluidity *the effect.*

Creation, generation, making, alteration.—Having thus, from what our senses are able to discover in the operations of bodies on one another, got the notion of Cause and Effect—viz., that a Cause is that which makes any other thing, either Simple Idea, Substance, or Mode, begin to be; and an Effect is that which had its beginning from some other thing—the mind finds [it] no great difficulty to distinguish the several originals of things into two sorts:—

First, When the thing is wholly made new, so that no part thereof did ever exist before; as when a new particle of matter does begin to exist, *in rerum naturâ*, which had before no being: and this we call Creation.

Secondly, When a thing is made up of particles which did all of them before exist, but that very thing so constituted of pre-existing particles (which, considered all together, make up such a collection of simple ideas), had not any existence before, as *this* man, *this* egg, rose, or cherry, &c. And this, when referred to a substance produced in the ordinary course of nature by an internal principle, but set on work by and received from some external agent or cause, and working by insensible ways which we perceive not, we call—Generation. When the cause is extrinsic, and the effect produced by a sensible separation or juxta-position of discernible parts, we call it—Making; and such are all artificial things. When any simple idea is produced which was not in that subject before, we call it—Alteration. Thus a man is *generated;* a picture *made;* and either of them *altered*, when any new sensible quality, or simple idea, is produced in [any] of them, which was not there before; and the things thus made to exist, which were not there before, are *effects;* and those things which operated to the existence, *causes.* To have the idea of Cause and Effect, it suffices to consider *any* simple idea, or substance, as beginning to exist by the operation of some other, without knowing the *manner* of that operation.

Relations of time.—Time and Place are also the *foundations* of very large Relations; and all finite beings at least are concerned in them. Thus, when any one says that "Queen Elizabeth lived sixty-nine, and reigned forty-five years," these words import only the *relation* of that duration to *some other*, and mean no more than this—that the duration of her existence was equal to sixty-nine, and the duration of her government to forty-five *annual revolutions* of the sun; and so are all words answering [to the question] '*How long?*' Again: "William the Conqueror invaded England about the year 1066," which means this,—that, taking the duration from our Saviour's time till now for one entire great length of time, it shows at what distance this invasion was *from the two extremes:* and so do all words of time answering to the question, '*When?*'—which show only the distance of any point of time from the period of a longer duration, from which we measure, and to which we thereby consider it as *related*.

There are yet, besides those, other words of time that ordinarily are thought to stand for *positive* ideas, which yet will, when considered, be found to be *relative*, such as are, young, old, &c. which include and intimate the relation anything has to a certain length of duration, whereof we have the idea in our minds. Thus, having settled in our thoughts the idea of the ordinary duration of a man to be seventy years, when we say a man is *young*, we mean that his age is yet but a small part of that which usually men attain to: and when we denominate him *old*, we mean that his duration is run out almost to the end of that which men do not usually exceed. And so it is but *comparing* the particular age or duration of this or that man to the idea of that duration which we have in our minds, as ordinarily *belonging to that sort* of animals: which is plain in the application of these names to other things; for a man is called *young* at twenty years, and *very young* at seven years old: but yet a horse we call *old* at twenty, and a dog at seven years; because in each of these we compare their age to *different ideas* of duration, which are settled in our mind as belonging to these several sorts of animals, in the ordinary course of nature. But the sun and stars, though they have outlasted several generations of men, we call not *old*, because we do not know what *period* God has set to that sort of beings: this term belonging properly to those things which we can observe, in the ordinary course of things, by a natural decay, to come to an end in a certain period of time; and so have in our minds, as it were, a *standard* to which we can compare the several parts of their duration; and by the relation they bear thereto, call them young, or old; which we cannot therefore do to a ruby or a diamond; things whose usual periods we know not.

Relations of place and extension.—The Relation also that things have to one another in their *places* and *distances* is very obvious to observe; as, above, below, a mile distant, in England, in London, &c. But as in duration, so in extension and bulk, there are some ideas that are relative, which we signify by names that are thought positive; as, *great* and *little* are truly Relations.

And so abundance of words, in ordinary speech, stand only for Relations (and perhaps the greatest part), which at first sight seem to have no such signification: v. g. [in the sentence,] 'The ship has necessary stores'—*necessary* and *stores* are both *relative* words; one having a relation to the accomplishing the voyage intended, and the other to future use. [As to] all which Relations, how they are confined to and terminate in ideas derived from Sensation or Reflection, is too obvious to need any explication.

CHAPTER XXVII.

OF IDENTITY AND DIVERSITY.

Wherein identity consists.—Another occasion the mind often takes of comparing is,—the *very being* of things; when, considering any thing as existing at any determined time and place, we compare it *with itself* existing at another time, and thereon form the ideas of Identity and Diversity: and in this consists Identity—when the ideas it is attributed to vary not at all from what they were [at] that moment wherein we consider their *former* existence, and to which we compare the *present.*

Identity of substances.—We have the ideas but of *three* sorts of Substances; 1. God. 2. Finite intelligences. 3. Bodies. *First,* God is without beginning, eternal, unalterable, and everywhere; and therefore concerning His Identity, there can be no doubt. *Secondly,* Finite

Spirits having had *each* its determinate time and place of beginning to exist, the *relation to that time and place* will always determine to each of them its Identity as long as it exists. *Thirdly*, The same will hold of every particle of matter, to which no addition or subtraction of matter being made, it is *the same*.

Identity of Modes [and Relations].—All other things being but Modes or Relations ultimately terminated in Substances, the Identity and Diversity of each particular existence of them, too, will be by the same way determined: only as to things whose existence is in *succession*, such as are the *actions* of finite beings, v. g. motion and thought, both which consist in a continued train of succession, concerning their diversity there can be no question; because, each perishing the moment it begins, they cannot exist in different times, or in different places, as permanent beings can at different times exist in distant places; and therefore no motion or thought, considered as at different times, can be *the same*, each part thereof having a different beginning of existence.

Identity of vegetables.—We must [next] consider wherein [a plant] differs from a mass of *matter;* and that seems to me to be in this: That the one is only the cohesion of particles of matter *any how* united; the other such a *disposition* of them as constitutes the parts of [a plant], and such an organization of those parts as is fit to receive and distribute nourishment, so as to continue and frame [suppose] the wood, bark, and leaves, &c. of an oak, in which consists the vegetable life. That being then one plant which has such an organization of parts in one coherent body, partaking of one common life, it continues to be *the same plant* as long as it partakes of *the same life*, though that life be communicated to *new* particles of matter vitally united to the living plant in a like continued organization, conformable to that sort of plant. For this organization, being at any one instant in any one collection of matter, is in that particular concrete distinguished from all other; and is that individual life which, existing constantly from that moment both forwards and backwards, in the same continuity of insensibly succeeding parts united to the living body of the plant, has that Identity which makes the same plant, and all the parts of it *parts of the same* plant, during all the time that they exist united in that continued organization, which is fit to convey that common life to all the parts so united.

Identity of animals.—The case is not so much different in brutes but that any one may hence see what makes an animal, and continues it the same. *Something* we have *like* this in machines, and [which] may serve to illustrate it. For example: What is a watch? It is plain it is nothing but a fit organization or construction of parts to a certain end, which, when a sufficient force is added to it, it is capable to attain. If we would suppose this machine one continued body, all whose organized parts were repaired, increased, or diminished, by a constant addition or separation of insensible parts, with one common life, we should have something very much like the body of an animal, with this difference,—that in an animal the fitness of the organization, and the motion wherein life consists, begin together, the motion coming from within; but in machines, the force coming sensibly from without, is often away when the organ is in order, and well fitted to receive it.

Identity of man.—This also shows wherein the Identity of the *same man* consists; viz. in nothing but—a participation of the same continued life, by constantly fleeting particles of matter, in succession vitally united to the same organised body. If [as some suppose] Identity of *soul alone* makes the same man, and there be nothing in the nature of *matter* why the same individual spirit may not be united to different bodies, it will be possible that those men living in distant ages, and of different tempers, may have been the same man: which way of speaking must be from a very strange use of the word *man*, applied to *an idea out of which body and shape* [are] *excluded*.

Identity suited to the idea.—It is not therefore unity of Substance that comprehends all sorts of Identity, or will determine it in every case: but, to conceive and judge of it aright, we must consider *what idea* the word it is *applied to* stands for: it being one thing to be the same *substance*, another the same *man*, and a third the same *person*, if person, man, and substance, are three names standing for three different ideas; for such as is the *idea* belonging to that name, such must be the Identity: which, if it had been a little more carefully attended to, would possibly have prevented a great deal of that confusion which often occurs about this matter, with no small seeming difficulties, especially concerning Personal Identity, which therefore we shall in the next place a little consider.

Personal identity.—To find wherein Personal Identity consists, we must consider what *person* stands for;

which, I think, is—a thinking intelligent being, that has reason and reflection, and can consider itself as itself, the same thinking thing, in different times and places—which it does *only* by that *Consciousness* which is inseparable from thinking, and seems to me *essential* to it: it being impossible for any one to *perceive*, without perceiving that he *does* perceive. When we see, hear, smell, taste, feel, meditate, or will any thing, we *know* that we do so. Thus it is always as to our *present sensations and perceptions:* and by this every one is to himself that which he calls *self;* it not being considered, in this case, whether the same *self* be continued in the same or diverse *substances.* For since *Consciousness* always accompanies Thinking, and it is *that* which makes every one to be what he calls *self*, and thereby distinguishes himself from all other thinking things—*in this alone* consists Personal Identity, i. e. the *sameness* of a Rational Being: and as far as this consciousness can be extended backwards to any past action or thought, so far reaches the Identity of that *person;* it is the same *self* now it was then; and it is by the same *self* with this present one that now reflects on it, that *that* action was done.

Consciousness makes personal identity.—But it is farther inquired, whether it be the same identical *substance?* This few would think they had reason to doubt of, if these perceptions, with their consciousness, always remained present in the mind, whereby the same thinking thing would be always *consciously present*, and, as would be thought, evidently the same to itself. But that which seems to make the difficulty is this, that this consciousness being interrupted always by forgetfulness, there being no moment of our lives wherein we have the whole train of all our past actions before our eyes in one view; but even the best memories losing the sight of one part whilst they are viewing another; and we sometimes, and that [during] the greatest part of our lives, not reflecting on our past *selves*, being intent on our present thoughts, and, in sound sleep, having no thoughts at all, or, at least, none with that *consciousness* which remarks our waking thoughts: I say, in all these cases, our consciousness being interrupted, and we losing the sight of our past *selves*, doubts are raised whether we are the same thinking thing, i. e. the same substance, or [not]; which, however reasonable or unreasonable, *concerns not* Personal Identity *at all:* the question being, what makes the same *person?* and not, whether it be the same identical *substance* which always thinks *in* the same person? which in this case matters not at all; different substances, by the same consciousness (where they do partake in it), being united into one person, as well as different bodies by the same life are united into one animal, whose identity is preserved, in that change of substances, by the unity of one *continued life.* For it being the same consciousness that makes a man be himself to himself, personal identity depends on that only, whether it be annexed only to one individual substance, or can be continued in a succession of several substances.

Personal identity in change of substances.—That this is so, we have some kind of evidence in our very bodies, all whose particles—whilst vitally united to this same thinking, conscious *self*, so that we feel when they are touched, and are affected by and conscious of good or harm that happens to them—are a part of ourselves; i. e. of our *thinking*, *conscious self.* Thus the limbs of his body are to every one a part of himself: he sympathizes and is concerned for them. Cut off a hand, and thereby *separate* it from that *consciousness* he had of its heat, cold, and other affections, and it is then no longer a part of that which is himself, any more than the remotest part of matter. Thus we see the *substance*, whereof *personal self* consisted at one time, may be varied at another, without the change of *personal identity;* there being no question about the same *person*, though the limbs, which but now were a part of it, be cut off.

Whether in the change of thinking substances.—But the question is, Whether, if the same *substance* which Thinks be changed, it can be the *same person*, or, remaining the same, it can be *different persons?*

To the first part of the question, I answer—That cannot be resolved but by those who know what kind of substances they are that do think: and whether the *consciousness* of past actions can be transferred from one thinking substance to another. And that [the latter] never [should be] so will by us (till we have clearer views of the nature of thinking substances) be best resolved into the goodness of God, who, as far as the happiness or misery of any of His sensible creatures is concerned in it, will not by a fatal error of theirs transfer from one to another that consciousness which draws *reward or punishment* with it.

As to the second part of the question, which seems to me to be built on this—Whether the same immaterial being, being conscious of the actions of its past duration, may be wholly stripped of all the consciousness of its past existence, and lose it beyond the power of ever retrieving again; and so, as it were, beginning a new account from a new period, have a consciousness that cannot reach beyond this new state? [I answer]—The same *immaterial substance*, without the same consciousness, no more mak[es] the same *person* by being united to any body, than the same particle of *matter*, without consciousness, united to any body, makes the same *person*.

And thus we may be able, without any difficulty, to conceive the same *person* at the resurrection, though in a *body* not exactly in make or parts the *same* whch he had here; *the same consciousness* going along with the soul that inhabits it. But yet the *soul* alone, in the change of bodies, would scarce to any one, but to him that [supposes] the soul [to *constitute*] the man, be *enough* to make the *same man*.

Self depends on consciousness.—Self is—that *conscious thinking thing* (whatever substance made up of—whether spiritual or material, simple or compounded—it matters not) which is sensible or conscious of pleasure and pain, capable of happiness or misery, and so is concerned for itself, as far as that consciousness extends. Thus every one finds, that whilst comprehended under that consciousness, the little finger is as much a part of himself as what is most so. Upon separation of this little finger, should this consciousness go along with the little finger, and leave the rest of the body, it is evident the little finger would be the person, the same person; and self then would have nothing to do with the rest of the body. As in this case it is the consciousness that goes along with the substance, when one part is separate from another, which makes the same person, and constitutes this inseparable self, so it is in reference to substances remote in time. That with which the consciousness of this present thinking thing can join itself makes the same person, and is one self with it, and with nothing else; and so attributes to itself and owns all the actions of that thing as its own, as far as that consciousness reaches, and no farther; as every one who reflects will perceive.

"*Person,*" *a forensic term.*—Person, as I take it, is the name for this *self.* Wherever a man finds what he calls *himself*, there, I think, another may say is the *same* person. It is a forensic term appropriating actions and their merit; and so belongs only to intelligent agents capable of a law, and [of] happiness and misery. This *personality* extends itself beyond present existence to what is past, only by *consciousness;* whereby it becomes concerned and accountable, owns and imputes to itself past actions, just upon the same ground and for the same reason that it does the present. All which is founded in a concern for happiness, the unavoidable concomitant of consciousness; that which is conscious of pleasure and pain desiring that *that* self that is conscious should be happy.

Object of reward and punishment.—In this Personal Identity is founded all the right and justice of *reward* and *punishment;* happiness and misery being that for which every one is concerned for himself, not mattering what becomes of any substance not joined to or affected with that *consciousness.* For as it is evident in the instance I gave but now, if the consciousness went along with the little finger when it was cut off, that would be the same self which was concerned for the whole body yesterday, as making a part of itself, *whose actions then* it cannot but admit as *its own now.* Though, if the *same* body should still live, and immediately from the separation of the little finger have *its own* peculiar *consciousness,* whereof the little finger knew nothing, it would not at all be concerned for *it,* as a part of itself, or could own any of *its* actions, or have any of them imputed to [itself].

But yet possibly it will still be objected, "Suppose I wholly lose *the memory of* some parts of my life, beyond a possibility of retrieving them, so that perhaps I shall never be *conscious* of them again; yet am I not *the same person* that did those actions—had those thoughts—that I was once conscious of, though I have now forgot them?" To which I answer—That we must here take notice what the word "I" is applied to; which, in this case, is—*the man only.* And the same man being presumed to be the same person, "I" is easily here supposed to stand also for the same person. But if it be possible for the same man to have distinct incommunicable *consciousnesses* at different times, it is past doubt the same man would at different times make different persons; which, we see, is the sense of mankind in the solemn declaration of their opinions; human laws not punishing the *mad* man for the *sober* man's actions, nor the sober man for what the mad man did; thereby [virtually] making them *two* persons; which is somewhat explained by our way of speaking, when we say—"Such an one is *not himself*—or is *beside* *himself;*" in which phrases it is insinuated as if those who now, or at least first, used them, thought that *self* was changed—[that] the *self-same person* was no longer in that man.

Difference between identity of man and person.—But yet, it is hard to conceive that the same *individual* man should be *two* persons. To help us a little in this, we must consider *what is meant* by 'the same individual man.'

First, It must be either the same individual, immaterial, thinking substance: in short, the same numerical soul, and nothing else.

Or, *secondly*, the same animal, without any regard to an immaterial soul.

Or, *thirdly*, the same immaterial spirit united to the same animal.

Now, take which of these suppositions you please, it is impossible to make Personal Identity to consist in anything but Consciousness, or reach any farther than that does.

"But is not a man drunk and sober the same person? Why else is he punished for the fact he commits when drunk, though he be never afterwards *conscious of it?*" Just as much the same person as a man that walks and does other things *in his sleep* is the same person; and is answerable for any mischief he shall do in it. Human laws punish both with a justice suitable to their way of *knowledge;* because in these cases they cannot *distinguish certainly* what is real, what counterfeit; and so the ignorance in drunkenness or sleep is not admitted as a plea. For, though punishment be annexed to *personality*, and personality to *consciousness*, and the drunkard perhaps be not *conscious* of what he did; yet human judicature justly punish[es] him, because *the fact* is proved *against* him, but *want* of consciousness cannot be proved *for* him. And therefore, conformabl[y] to this, the Apostle tells us that, at the great day, when every one shall "receive according to his doings," the "*secrets of all hearts shall be laid open.*"

The difficulty from ill use of names.—To conclude: Whatever Substance begins to exist must, *during* its existence, necessarily be the same: whatever compositions of Substances begin to exist, *during* the union of those Substances the *concrete* must be the same: whatsoever Mode begins to exist, *during* its existence it is the same: and so if the composition be of distinct Substances and different Modes, the same rule holds. Whereby it will appear, that the difficulty or obscurity that has been about this matter rather [a]rises from names ill used, than from any obscurity in things themselves. For whatever makes the specific idea to which the *name* is applied, if that *idea* be steadily kept to, the distinction of anything into the same and diverse will easily be conceived, and there can arise no doubt about it.

Continued existence makes identity.—For [1.] supposing a Rational Spirit be *the* idea of a man, it is easy to know what is the same man; viz. the same *spirit*—whether separate or in a body—will be the same man. [2.] Supposing a Rational Spirit *vitally* united to* a Body of a certain conformation of parts to [constitute] a man, whilst that rational spirit, with that vital conformation of parts,

---

* In some editions we find 'virtually.'—ED.

—though continued in a fleeting, successive body—*remains*, it will be the same man. But if [3.] to any one the idea of a man be but the *vital union of* parts *in a certain shape*, as long as *that* vital union and shape *remain*, in a concrete no otherwise the same [than] by a continued succession of fleeting particles, it will be the same man. For, whatever be the composition whereof the complex idea is made, whenever existence makes it one particular thing under any denomination, the same existence, continued, preserves it the same individual under the same denomination.

◆

CHAPTER XXVIII.

OF OTHER RELATIONS.

Besides the before-mentioned occasions of time, place, and casualty, [for] comparing, or referring things one to another, there are, as I have said, infinite[ly many] others, some whereof I shall mention.

Proportional.—First, Some one simple idea, being capable of parts or degrees, [may] afford an occasion of comparing the subjects wherein it is to one another, in respect of that simple idea, v. g. whiter, sweeter, equal, more, &c. These Relations, depending on the equality [or] excess of the same simple idea in several subjects, may be called—Proportional; and that these are only conversant about those Simple ideas received from Sensation or Reflection is so evident, that nothing need be said to evince it.

Natural.—Secondly, Another occasion of comparing things together is—the circumstances of their origin or beginning; which, being not afterwards to be altered, make the Relations depending thereon as lasting as the subjects to which they belong; v. g. father and son, brothers, countrymen, &c.; and these I call—Natural Relations: wherein we may observe, that mankind have fitted their notions and words to the use of common life, and not to the truth and extent of things. For, it is very convenient that by distinct names these relations should be observed and marked out in mankind, there being occasion, both in laws and other communications one with another, to mention and take notice of men under these relations; from whence also arise the obligations of several duties amongst men: whereas in [the case of] brutes, men having very little or no cause to mind these relations have not thought fit to give them distinct and peculiar names. This, by the way, may give us some light into *the different state and growth of Languages;* which, being suited only to the convenience of communication, are proportioned to the notions men have, and the commerce of thoughts familiar amongst them; and not to the reality or extent of things, nor to the various *respects* [that] might be found among them; nor [to] the different abstract considerations [that] might be framed about them. Where they [have] had no philosophical notions, there they [have] had no terms to express them: and it is no wonder men should have framed no names for those things they found no occasion to discourse of. From whence it is easy to imagine why in some countries they may not have so much as the name for a horse; and in others, where they are more careful of the pedigrees of their horses than of their own, they have not only names for particular horses, but also of their [the horses'] several relations of kindred one to another.

Instituted.—*Thirdly*, Sometimes the foundation of considering things with reference to one another is—some act whereby any one comes by a moral right, power, or obligation to do something. Thus a general is one that has power to command an army; and an army under a general is a collection of armed men obliged to obey one man. A citizen or a burgher is one who has a right to certain privileges in this or that place. All this sort, depending upon men's wills or agreement in society, I call—Instituted, or Voluntary; and [they] may be distinguished from the Natural, in that they are, most if not all of them, [in] some way or other *alterable* and *separable* from the persons to whom they have sometimes belonged, though neither of the substances so related be destroyed. Now, though these are all *reciprocal*, as well as the rest, and contain in them a reference of two things one to the other, yet, because one of the two things often wants* a relative name importing that reference, men usually take no notice of it, and the Relation is commonly overlooked.

Moral.—*Fourthly*, There is another sort of Relation, which is—The conformity or disagreement [of] men's *voluntary* actions to a Rule to which they are referred, and by which they are judged; which, I think, may be called —Moral Relation, as being that which denominates our moral actions. [This class] deserves well to be examined;

---

* See page 159, seventh line.—ED.

there being no part of Knowledge wherein we should be more careful to get determined ideas, and avoid, as much as may be, obscurity and confusion. But this is *not all* that concerns our actions: it is not *enough* to have determined ideas of them, and to know what names belong to such and such combinations of ideas. We have a farther and greater concernment; and that is—to know whether such actions so made up are morally *good* or *bad.*

Moral good and evil.—Moral good [or] evil is—The conformity or disagreement of our *voluntary* actions to some Law, whereby good or evil is drawn on us by the will and power of the law-maker: which good or evil (pleasure or pain) attending our observance or breach of the Law, by the decree of the law-maker, is that we call *reward* and *punishment.*

Moral rules.—Of these moral rules or Laws, to which men generally refer (and by which they judge of the rectitude or pravity of) their actions, there seem to be three sorts, with their three different *enforcements*, or rewards and punishments. For since it would be utterly in vain to suppose a rule set to the free actions of man, without annexing to it *some* enforcement of good and evil to determine his will, we must, wherever we suppose a law, suppose also some reward or punishment annexed to that law. It would be in vain for one intelligent being to set a rule to the actions of another, if he had it not in his power to reward compliance with, and punish deviation from, his rule [by an adequate *Sanction*, i. e.]—by some good and evil that is *not the natural product and consequence of* the action itself: for that [product] being a *natural* convenience or inconvenience, would operate *of itself* without a law. This, if I mistake not, is the true nature of all Law, properly so called.

Laws.—The Laws that men generally refer their actions to, [in order] to judge of their rectitude or obliquity, seem to be these three: (1) The Divine Law; (2) The Civil Law; (3) The Law of Opinion or reputation. By the relation they bear to the first of these, men judge whether their actions are *sins* or *duties;* by the second, whether they be *criminal* or *innocent;* and by the third, whether they be *virtues* or *vices.*

Divine law, the measure of sin and duty.—First, The Divine Law: whereby I mean—the Law which God has set to the actions of men; whether *promulgated* to them by [1.] the light of Nature, or [2.] the voice of Revelation. That God has given a rule whereby men should govern themselves, I think there is nobody so brutish as to deny. He has a Right to do it, [for] we are His creatures:—He has goodness and wisdom to direct our actions to that which is best:—and He has power to enforce it by rewards and punishments, of infinite weight and duration, in another life; for nobody can take us out of His hands. This is the only true touchstone of moral rectitude; and by comparing them to this Law, men judge of the most considerable moral good or evil of their actions.

Civil law, the measure of crimes and innocence.—Secondly, The Civil Law—the Rule set by the Commonwealth to the actions of those who belong to it—is another rule to which men refer their actions, to judge whether they be criminal or not. This Law nobody *overlooks;* the rewards and punishments that enforce it being *ready at* *hand*, and suitable to the power that makes it; which is—the force of the commonwealth, engaged to protect the lives, liberties, and possessions of those who live according to its laws, and [having] power to take away life, liberty, or goods from him who disobeys; which is the punishment of offences committed against this Law.

Philosophical law, the measure of virtue and vice.—*Thirdly*, The Law of Opinion or reputation. *Virtue* and *vice* are names pretended and supposed everywhere to stand for actions in their own nature right or wrong: and *as far as they really are* so applied, they so far are *coincident with* the Divine Law above mentioned. But yet, whatever is pretended, this is visible, that these names—*virtue* and *vice*—in the particular instances of their application, through the several nations and societies of men in the world, are constantly attributed only to such actions as in each country and society are in *reputation* or *discredit*. Nor is it to be thought strange that men everywhere should give the name of *virtue* to those actions which amongst them are judged praiseworthy, and call that *vice* which they account blameable: since otherwise they would condemn themselves, if they should think anything right to which they allowed not commendation—anything wrong which they let pass without blame. For though men uniting into politic societies have *resigned* up to the public the disposing of all their force, so that they cannot employ it against any fellow-citizen any farther than the law of the country directs, yet they retain still the power of thinking well or ill, approving or disapproving, of the actions of those whom they live amongst, and converse with; and by this approbation and dislike, they establish amongst themselves what they *call* virtue and vice.

That this is the common measure of virtue and vice will appear to any one who considers, that though that passes for vice in one country which is counted virtue—or at least not vice—in another; yet everywhere *virtue* and *praise*, *vice* and *blame*, go together. Virtue is everywhere that which is thought praiseworthy; and nothing else but that which has the allowance of public esteem is called virtue. Virtue and praise are so united, that they are called often by the same name. *Sunt sua præmia laudi*, says Virgil; and so Cicero—*Nihil habet natura præstantius quàm honestatem, quàm laudem, quàm dignitatem, quàm decus;* which, he tells [us], are all names for the same thing. (*Tusc.* lib. ii.) This is the language of the heathen philosophers, who well understood wherein their notions of virtue and vice consisted. And though perhaps by the different temper, education, fashion, maxims, or interest of different sorts of men, it fell out that what was thought praiseworthy in one place escaped not censure in another—and so in different societies virtues and vices were changed—yet, as to the main, they *for the most part* kept the same everywhere. For since nothing can be more natural than to encourage with esteem and reputation that wherein every one finds his advantage, and to blame and discountenance the contrary, it is no wonder that esteem and discredit, virtue and vice, should in a great measure everywhere correspond with the *unchangeable rule of right and wrong* which the Law of God has established; there being nothing that so directly and visibly secures and advances the general good of mankind in this world as obedience to the laws He has set them; and nothing that breeds such mischief and confusion as the neglect of them. And therefore men, without renouncing all sense and reason, and their own interest which they are so constantly true to, could not *generally* mistake in placing their commendation [or] blame on that side that really deserved it. Nay, even those men whose *practice* was otherwise, failed not to give their *approbation* right; few being depraved to that degree as not to condemn, at least in others, the faults they themselves were guilty of: whereby, even in the corruption of manners, the true boundaries of the Law of Nature, which ought to be the rule of virtue and vice, were well preserved. So that even the exhortations of inspired teachers have not feared to appeal to *common repute*: "Whatsoever is *lovely*—whatsoever is of *good report;* if there be any *virtue*—if there be any *praise*," &c. (Phil. iv. 8.)

Its enforcements, commendation, and discredit.—If any one shall imagine that I have forgotten my own notion of a Law, when I make the law whereby men judge of virtue and vice to be nothing else but the consent of private men who have not authority enough to make a law; especially wanting that which is so necessary and essential to a law—a *power* to enforce it, I think I may say, that he who imagines commendation and disgrace not to be strong motives to men to accommodate themselves to the opinions and rules of those with whom they converse, seems little skilled in the nature or history of mankind; the greatest part whereof he shall find to govern themselves chiefly, if not solely, by this law of fashion; and [provided] they do that which keeps them in reputation with their company, little regard the laws of God or the magistrate. The penalties that attend the breach of God's laws, some, nay perhaps most, men seldom seriously reflect on; and amongst those that do, many, whilst they break the law, entertain thoughts of future *reconciliation*, and making their peace for such breaches: and as to the punishments due from the laws of the commonwealth, they frequently flatter themselves with the hope of *impunity*. But no man escapes the punishment of censure and dislike who offends against the fashion and opinion of the company he keeps, and would recommend himself to.

To conceive rightly of Moral actions, we must take notice of them under this twofold consideration: *First*, As they are *in themselves*—each made up of such a collection of simple ideas: thus *drunkenness*, *lying*, signify such or such a collection of simple ideas, which I call Mixed Modes: and in this sense they are positive, absolute ideas. *Secondly*, Our actions are considered as *good*, *bad*, or *indifferent;* and in this respect they are *relative*, it being their conformity to, or disagreement with, some rule that makes them to be regular or irregular, good or bad: and so, as far as they are compared with a rule, and thereupon denominated, they come under Relation. Thus the challenging and fighting with a man, as it is a certain *positive* Mode, or particular sort of action, by particular ideas distinguished from all others is called—*duelling:* which, when considered in relation to the law of God, will deserve the name *sin;* to the law of fashion, in some countries *valour* and *virtue;* and to the municipal laws of some governments, a *capital crime.* In this case, when the *positive* mode has one name, and another name as it stands *in relation* to the law, the distinction may as easily be observed as it is in substances, where one name (v. g. *man*) is used to signify the thing, another (v. g. *father*) to signify the relation.

The denominations of actions often mislead us.—But because very frequently the *positive idea* of the action, and its *moral relation*, are comprehended together under *one name*, and the same word [is] made use of to express both the mode or action and its moral rectitude or obliquity, therefore the Relation itself is less taken notice of: and there is often no distinction made between the positive idea of the action, and the reference it has to a rule. By which confusion of these two distinct considerations under one term, those who yield too easily to the impressions of sounds, and are forward to take names for things, are often misled in their judgment of actions. Thus the taking from another what is his, without his knowledge or allowance, is properly called—'stealing:' but that name being commonly understood to signify also the moral pravity of the action, and to denote its contrariety to the law, men are apt to condemn whatever they hear called 'stealing,' as an ill action disagreeing with the rule of right. And yet the private taking away [of] his sword from a madman, to prevent his doing mischief, —though it be properly denominated 'stealing,' as the *name* of such a mixed mode,—when compared to the Law of God, and considered in its relation to that *supreme* rule, is no sin or transgression, though the name 'stealing' ordinarily carries such an intimation with it.

All relations terminate in simple ideas.—From what has been said [we may, in conclusion] observe, *First,* That it is evident that all Relation terminates in—and is ultimately founded on—those Simple ideas we have got from Sensation or Reflection: so that all that we have in our thoughts ourselves (if we think of anything, or have any meaning)—[all that we] would signify to others when we use words standing for relations—is nothing but some simple idea, or collection of simple ideas compared one with another.

We have ordinarily a notion as clear (or clearer) of the relation as of its foundation.—Secondly, That in Relations, we have for the most part, if not always, as clear a notion of the Relation, as we have of those simple ideas wherein it is founded.

The notion of the relation is the same, whether the rule any action is compared to be true or false.—Thirdly, That in these I call Moral Relations I have a true notion of *relation* by comparing the action with the rule, whether the rule be *true* or *false.* For if I measure anything by a yard, I know whether the thing I measure be longer or shorter than that supposed yard, though perhaps the yard I measure by be not exactly the standard: which, indeed, is another inquiry. For, though the rule be erroneous, and I mistaken in it, yet the agreement or disagreement observable in that which I compare with it makes me *perceive the relation.* Measuring by a wrong rule I shall be brought to judge *amiss* of its moral rectitude: yet I am not mistaken in the relation which that action bears to that rule I compare it to, which is [merely a relation of] agreement or disagreement.

CHAPTER XXIX.

OF CLEAR AND OBSCURE, DISTINCT AND CONFUSED IDEAS.

'Clear' and 'obscure' [*in ideas*], *explained by sight.*—The perception of the mind being most aptly explained by words relating to the sight, we shall best understand what is meant by Clear and Obscure in our ideas by reflecting on what we call *clear* and *obscure* in the objects of *sight.* Light being that which discovers to us visible objects, we give the name of *obscure* to that which is not placed in a light sufficient to discover minutely to us the figure and colours which are observable in it; and which, in a better light, would be discernible. In like manner our Simple ideas are *clear*—when they are such as the objects themselves, from whence they were taken, did or might, in a well-ordered sensation or perception, present them. Whilst the memory retains them thus, and can produce them to the mind whenever it has occasion to consider them, they are *clear* ideas. So far as they either want anything of that original exactness, or have lost any of their first freshness, and are, as it were, faded or tarnished by time, so far are they *obscure.* Complex ideas, as they are made up of simple ones, so *they* are clear [1.] when the ideas that go to their composition are clear; and [2. when] the number and *order* of those simple ideas, that are the ingredients of any complex one, [are] determined and certain.

Causes of obscurity.—The cause of obscurity in Simple ideas seems to be either [1.] dull organs, or [2.] very slight and transient impressions made by the objects, or else [3.] a weakness in the memory not [being] able to retain them as received. For—to return again to visible objects, to help us to apprehend this matter—if the organs or faculties of perception [be] like wax over-hardened with cold, [which] will not receive the impression of the seal from the usual impulse wont to imprint it; or like wax of a temper too soft, [which] will not hold it well when imprinted; or else supposing the wax of a temper fit, but the seal not applied with a sufficient force to make a clear impression—in any of these cases, the print left by the seal will be obscure.

Distinct and confused, what.—As a *clear* idea is—that whereof the mind has such a full and evident perception as it receive[s] from an outward object operating duly on a well-disposed organ, so a *distinct* idea is—that wherein the mind perceives a difference from all other [ideas]; and a *confused* idea is such as is not sufficiently distinguishable from another from which it ought to be different.

Objection.—"If no idea be confused but such as is not sufficiently distinguishable from another from which it should be different, it will be hard," may any one say, "to find anywhere a *confused* idea. For, let any idea be as it will, it can be no other but such as the mind perceives it to be; and that very perception sufficiently distinguishes it from all other ideas, which cannot be other, i. e. different, without being perceived to be so. No idea, therefore, can be undistinguishable from another from which it ought to be different, unless you would have it different from itself: for from all other [ideas] it is evidently different."

Confusion of ideas is in reference to their names.—To remove this difficulty, and to help us to conceive aright what it is that *makes* the *confusion* ideas are at any time chargeable with, we must consider that things ranked under *distinct names* are supposed different enough to be distinguished; and so each sort, by its peculiar name, may be marked, and discoursed of apart, upon any occasion: and there is nothing more evident than that the greatest part of different names are supposed to stand for different things. Now, every idea a man has being [evidently] what it is, and distinct from all other ideas but itself, that which makes it *confused* is—when it is such that it may as well be called by *another name* as that which it is expressed by; *the difference* which keeps the things (to be ranked under those two different names) distinct, and makes some of them belong rather to the one, and some to the other of those names, being *left out;* and so the distinction, which was intended to be kept up by those different names, is quite lost.

Defaults which make confusion.—The defaults which usually occasion this confusion are chiefly these following:—

Complex ideas made up of too few simple ones.—*First*; When any complex idea (for complex ideas are most liable to confusion) is made up of *too small a number* of simple ideas, and [of] such only as are *common to other* things, whereby the differences (that make it deserve a different name) are left out. Thus, he that has an idea made up of barely the simple ones of a beast with spots has a *confused* idea of a leopard; it not being thereby sufficiently distinguished from a lynx and several other sorts of beasts that are spotted. So that such an idea, though it has the peculiar name 'leopard,' is not distinguishable from those designed by the names 'lynx,' [and] 'panther;' and may as well come under the name 'lynx' as 'leopard.' How much the custom of defining words by *general* Terms contributes to make the ideas we would express by them confused and undetermined I leave [to] others to consider. This is evident—that confused ideas are such as render the use of *words* uncertain, and take away the benefit of distinct *names.* When the ideas for which we use different terms have not a difference answerable to their distinct names, and so cannot be distinguished by them, there it is that they are truly confused.

Or [of] simple ones jumbled together.—Secondly, Another default which makes our ideas confused is—when though the particulars that make up any idea are in number enough, yet they are so jumbled *together* that it is not easily discernible whether it more belongs to the name that is given it than to any other. Nothing [will better enable] us [to] conceive this confusion than a sort of pictures usually shown as surprising pieces of art, wherein the colours, as they are laid by the pencil on the table itself, mark out very odd and unusual figures, and have no discernible order in their position. This draught, thus made up of parts wherein no symmetry or order appears, is, *in itself,* no more a *confused* thing than the picture of a cloudy sky, wherein though there be as little order of colours or figures to be found, yet nobody thinks it is a confused picture. What is it then that makes it to be *thought* confused, since the want of symmetry does not?—as it is plain it does not; for another draught made barely in *imitation* of this could not be called confused. I answer: that which makes it to be thought confused is—the *applying* it to some *name* to which it does no more discernibly belong than to some other. V. g. when it is *said* to be the picture of a man, or Cæsar, then any one with reason counts it confused; because it is *not discernible*, in that state, to belong more to the name 'man,' or 'Cæsar,' than to the name 'baboon,' or 'Pompey;' which are supposed to stand for different ideas from those signified by 'man,' or 'Cæsar.' But when a cylindrical mirror, placed right, has reduced those irregular lines on the table into their due order and proportion, then the confusion ceases, and the eye presently *sees that it is* a man, or Cæsar; i. e. that it belongs to those names, and that it is sufficiently distinguishable from a baboon, or Pompey; i. e. from the ideas signified by those names. Just thus it is with our ideas, which are, *as it were*, the pictures of things. No one of these mental draughts, however the parts are put together, can be called *confused* (for they are plainly discernible as they are), till it be ranked under some ordinary *name*, to which it *cannot be discerned* to belong, any more than it does to some other name of an *allowed different* signification.

Or are mutable and undetermined.—Thirdly, A defect that frequently gives the name of 'confused' to our ideas is—when *any one* of them is *uncertain* and undetermined. Thus we may observe men who, not forbearing to use the ordinary words of their language till they have learned their precise signification, change the idea [which] they make this or that term stand for, almost as often as they use it. He that does this, out of uncertainty of what he should leave out or put into his idea of 'church' or 'idolatry,' every time he thinks of either and holds not steady to any one precise combination of ideas that makes it up, is said to have a *confused* idea of 'idolatry' or 'church:' though this be still for the same reason as the former, viz. because a *mutable* idea (if we will allow it to be one idea) cannot *belong to* one name *rather than* another; and [it] so loses the distinction that distinct names are designed for.

Confusion [how to be avoided].—And therefore when a man designs, by any *name*, a sort of things, or any one particular thing distinct from all others, the complex idea he annexes to that name is the more distinct [1.] the *more particular* the [component] ideas are, and [2.] the *greater* and more *determinate* [their] *number* and *order*. For the more it has of these, the more has it still of the *perceivable* differences whereby it is kept separate and distinct from all ideas belonging to other names, even those that approach nearest to it; and thereby all confusion with them is avoided.

Confusion concerns always two ideas.—Confusion, making it a difficulty to separate two things that should be separated, concerns always *two* ideas [at least]; and those most which most *approach* one another. Whenever therefore we suspect any idea to be confused, we must examine *what other* it is in danger to be confounded with—or which it cannot easily be separated from; and that will always be found—an idea belonging to *another name*, (and so should be a different thing,) from which yet it is not sufficiently distinct; being either the same with it, or making a part of it, or, at least, as properly called by that name as the other; and so keeps not that difference from that other idea, which the different names import.

Confusion [of ideas further considered].—This, I think, is the Confusion proper to ideas, which still carries with it a secret reference to *names.* At least, if there be any other confusion of ideas, this is that which most of all disorders men's thoughts and discourses: ideas, as ranked under names, being those that for the most part men reason of within themselves, and always those which they commune about with others. And therefore where there are supposed two different ideas —marked by two different names—which are not as distinguishable as the sounds that stand for them, there never fails to be confusion; and where any ideas are distinct, *as the ideas of those two sounds* they are marked by, there can be between them no confusion. The way to prevent it is—[1.] to collect and unite into one complex idea, as precisely as is possible, all those ingredients whereby it is differenced from others; and—[2.] to them so united in a determinate number and order [to] apply steadily the same name. But this neither accommodating men's ease or vanity, nor serving any design but that of naked truth—which is not always the thing aimed at—such exactness is rather to be wished than hoped for. And since the loose application of names to undetermined, variable, and almost no ideas, serves to cover our own ignorance, as well as to perplex and confound others, (which goes for learning and superiority in knowledge,) it is no wonder that most men should use it themselves, whilst they complain of it in others. [But] though

I think no small part of the confusion to be found in the notions of men might by care and ingenuity be avoided, yet I am far from concluding it everywhere wilful. Some ideas are so complex, and made up of so many parts, that the memory does not easily retain the very same precise combination of simple ideas under one name; much less are we able constantly to divine for what precise complex idea such a name stands in *another* man's use of it. From the first of these follows confusion in a man's own reasonings and opinions within himself—from the latter, frequent confusion in discoursing and arguing with others.

Complex ideas may be distinct in one part, and confused in another.—Our complex ideas, being made up of collections (and so [of a] variety) of simple ones, may accordingly be very clear and distinct in one part, and very obscure and confused in another. In a man who speaks of a chiliaedron, or a body of a thousand sides, the idea of the *figure* may be very confused, though that of the *number* be very distinct; so that he, being able to discourse and demonstrate concerning that *part* of his complex idea which depends upon the number, he is apt to think he has a distinct idea of a chiliaedron; though it be plain he has no precise idea of its figure, so as to distinguish it from one that has *nine hundred and ninety-nine* sides: the not observing whereof causes no small error in men's thoughts, and confusion in their discourses. For being satisfied in part of the idea, and the name being applied to the whole, we use *it* for the confused part, and confidently draw deductions.

Instance in eternity.—[For instance] having frequently in our mouths the name 'eternity,' we are apt to think we have a *positive*, comprehensive idea of it; which is as much as to say that there is no part of that duration which is not clearly *contained in* our idea. It is true that he that thinks so may have a clear idea of duration; he may also have a very clear idea of a very great length of duration; he may also have a clear idea of the comparison of that great one with still a greater: but it not being possible for him to *include* in his idea of any duration, let it be as great as it will, *the whole* extent together of a duration where he supposes no end, that *part* of his idea which is still beyond the bounds of that large duration is very obscure and undetermined. And hence it is that in disputes and reasonings concerning eternity, or any other infinite, we are apt to involve ourselves in manifest absurdities. For nothing finite bears any proportion to infinite; and therefore our ideas, *which are* ALL *finite*, cannot bear any.

Divisibility of matter.—In [like manner, in] *matter*, we have no clear ideas of the *smallness* of parts much beyond the smallest that *occur* to any of our senses; and therefore when we talk of the divisibility of matter *in infinitum*, though we have clear ideas of division and divisibility, and have also clear ideas of parts made out of a whole by division, yet we have but very obscure and confused ideas of corpuscles or minute bodies so to be divided, when by former divisions they are reduced to a smallness much exceeding the perception of any of our senses; and so all that we have clear and distinct ideas of is—[1.] of what division in general, or abstractly [considered], is—and [2.] the relation of *totum* and *pars:* but of the bulk of the body, to be thus infinitely divided after certain progressions, I think we have no clear or distinct idea at all.

CHAPTER XXXI.

OF ADEQUATE AND INADEQUATE IDEAS.

Adequate ideas are such as perfectly represent their archetypes.—Of our Real Ideas some are adequate, and some are inadequate. Those I call Adequate, which perfectly represent those archetypes which the mind supposes them taken from; which it intends them to stand for, and to which it refers them. Inadequate ideas are such, [as] are but a partial or incomplete representation of those archetypes to which they are referred. Upon which account it is plain,—

Simple ideas all adequate.—*First*, That all our Simple ideas are *adequate:* because, being nothing but the effects of certain powers in things fitted and ordained by God to produce such sensations in us, they cannot but be correspondent and adequate to those powers; and we are *sure* they agree to the reality of things.

Modes [and relations] are all adequate.—*Secondly*, Our Complex ideas of Modes being voluntary collections of Simple ideas, which the mind puts together without referenec to any *real* archetypes, or standing patterns, existing anywhere, are, and cannot but be, adequate ideas; because, they not being intended for things really existing, but for archetypes made by the mind, to rank and denominate things by, cannot want anything; they having, each of them, that combination of ideas, and thereby that perfection which the mind intended they should; so that the mind acquiesces in them, and can find nothing wanting. [So also] Relations, being archetypes without patterns, and so having nothing to represent but themselves, cannot but be *adequate*, everything being so to itself.

Modes in reference to settled names may be inadequate.—Complex ideas of Modes, when they are *referred* by the mind, and intended to correspond to the ideas *in the mind of some other* intelligent being, expressed by the names [that] *we* apply to them, *may be* very deficient, wrong, and *inadequate;* because they [may] not agree to that which the mind designs to be their archetype and pattern; *in which respect only* any idea of Modes can be wrong, imperfect, or *inadequate.* And on this account, our ideas of Mixed Modes are *the most liable* to be faulty of any other: but this refers more to proper speaking, than [to] knowing right.

Ideas of substances, as referred to real essences, not adequate.—Thirdly, What ideas we have of Substances, I have shown: now, those ideas have in the mind a double reference: 1. Sometimes they are referred to a supposed Real Essence of each *species* of things. 2. Sometimes they are only designed to be pictures and representations in the mind of things that do exist, by ideas of those Qualities that are discoverable in them. In both which ways, these copies of those originals and archetypes are imperfect and *inadequate.*

First, It is usual for men to make the names of Substances stand for things, as supposed to have certain Real Essences, whereby they are of this or that *species;* and names standing for nothing but the ideas that are in men's minds, they must consequently refer their ideas to such Real Essences as to their archetypes. And thus they ordinarily apply the *specific* Names they rank particular Substances under, to things as distinguished by such *specific* Real Essences. Who is there almost, who would not take it amiss, if it should be doubted whether he called himself 'man,' with any other meaning than as having the Real Essence of a 'man.' And yet if you demand what those Real Essences are, it is plain men are ignorant, and know them not. From whence it follows, that the ideas they have in their minds, being referred to Real Essences, as to archetypes which are unknown, must be so far from being *adequate*, that they cannot be supposed to be any representation of them at all.

Ideas of substances, as collections of their qualities, are all. inadequate.—Secondly, Those, who neglecting that useless supposition of unknown Real Essences whereby they are distinguished, endeavour to copy the Substances that exist in the world, by putting together the ideas of those *sensible* Qualities which are found coexisting in them (though they come much nearer a likeness of them, than those who imagine they know not what Real *specific* Essences), yet arrive not at perfectly *adequate* ideas of those substances [which] they would thus copy into their minds: nor do those copies exactly and fully contain all that is to be found in their archetypes. Because those Qualities, and Powers of Substances, whereof we make their complex ideas, are so many and various, that no man's complex idea contains them all. That our Abstract ideas of Substances do not contain in them all the simple ideas that are united in the things themselves is evident, in that men do rarely put into their complex idea of any Substance *all* the simple ideas they *do know* to exist in it. Because, endeavouring to make the signification of their *specific* names as clear and as little cumbersome as they can, they make their *specific ideas* of the *sorts* of Substances, for the most part, of *a few* of those Simple ideas which are to be found in them: but these having no original precedency, or right to be put in, and make the specific idea more than others that are left out, it is plain that [in] both these ways, our ideas of Substances are deficient and *inadequate*.

[This] would be so also in mathematical figures, if we were to have our complex ideas of them only by collecting their properties in reference to *other* figures. How uncertain and imperfect would our ideas be of an ellips[e], if we had no other idea of it, but some few of its properties? Whereas, having *in our plain idea* the whole Essence of that figure, we from thence discover those properties, and demonstratively see how they flow, and are inseparable from it.

Simple ideas, ἔκτυπα, and adequate.—Thus the mind has *three* sorts of Abstract ideas, or Nominal Essences.

First, Simple ideas, which are Ἔκτυπα, or *copies;* but yet certainly *adequate:* because being intended to express nothing but the *power* in things to produce in the mind such a sensation, that sensation, when it is produced, cannot but be the effect of that power: and being meant for nothing else but the effect of such a power, that simple idea is *real* and *adequate.*

Ideas of substances are ἔκτυπα, inadequate.—Secondly, The Complex ideas of Substances are Ectypes—copies—too; but not perfect ones—not adequate: [for] if we would have, and actually had in our complex idea, an exact collection of all the Secondary Qualities or Powers of any Substance, we should not yet *thereby* have an idea of the Essence of that thing. For since the Powers or Qualities, that are observable by us are not the Real Essence of that Substance, but depend on it, and flow from it, any collection whatsoever of these qualities cannot be the Real Essence of that thing.

Ideas of modes and relations are archetypes, and cannot but be adequate.—Thirdly, Complex ideas of Modes and Relations are originals and archetypes—are not *copies;* nor [are they] made after the pattern of any real existence, to which the mind intends them to be conformable, and exactly to answer. These being such collections of Simple ideas, that the mind *itself puts together*—and such collections, that each of them contains in it precisely all that the mind intends it should—they are archetypes, and Essences of Modes that may exist; and so are designed only for, and belong only to, such Modes, as when they do exist, have an exact conformity with those complex ideas. The ideas therefore of Modes and Relations cannot but be *adequate.*

CHAPTER XXXIII.

OF THE ASSOCIATION OF IDEAS.

Something unreasonable in most men.—There is scarce any one that does not observe something that seems odd to him, and is in itself really extravagant, in the opinions, reasonings, and actions of other men, though he be guilty of much greater unreasonableness in his own tenets and conduct, which he never perceives.

Not wholly from self-love.—This proceeds not wholly from self-love. Men of fair minds, and not given up to the overweening of self-flattery, are frequently guilty of it; and in many cases one with amazement hears the arguings, and is astonished at the obstinacy, of a worthy man, who yields not to the evidence of reason, though laid before him as clear as day-light.

Nor from education.—Education is often rightly assigned for the cause, and prejudice is a good general name for *the thing itself:* but yet, I think, he ought to look a little farther who would trace this sort of madness to the root it springs from; and so explain it as to show whence this flaw has its original in very sober and rational minds, and wherein it consists.

A degree of madness.—I shall be pardoned for calling it by so harsh a name as *madness*, when it is considered that *opposition to reason* deserves that name, and is really madness; and there is scarce a man so free from it but that [he] would be thought fitter for bedlam than civil conversation if he should always—on all occasions—argue or do as in some cases he constantly does. I do not here mean when he is under the power of an unruly passion; but in the steady, calm course of his life. That which will yet more apologize for this harsh name, and ungrateful imputation on the greatest part of mankind, is—that [on] inquiring a little into the nature of madness (Chap. xi.), I found it to spring from the very same root, and to depend on the very same cause we are here speaking of.

From a wrong connexion of ideas.—Some of our ideas have a *natural* correspondence and connexion one with another: it is the office and excellency of our *reason* to trace these, and to hold them together in that union and correspondence which is founded in their peculiar beings. Besides this, there is another connexion of ideas wholly owing to *chance* or *custom:* ideas that in themselves are not at all of kin, come to be so united in some men's minds that it is very hard to separate them; they always keep in company, and the one no sooner at any time comes into the Understanding, but its *associate* appears with it; and if they are more than two which are thus united, the whole [group], always inseparable, show themselves together.

This connexion, how made.—This strong combination of ideas, not allied by nature, the mind makes in itself either [1.] voluntarily, or [2.] by chance: and hence it comes in different men to be very different, according to their different inclinations, educations, interests, &c. Custom settles habits of *thinking* in the Understanding, as well as of *determining* in the will, and of *motions* in the body. As far as we can comprehend Thinking, ideas seem to be thus produced in our minds; or if they are not, this may serve to explain their following one another in an habitual train, when once they are put into that track, as well as it does to explain such motions of the body.

Some antipathies an effect of it.—To this, perhaps, might be justly attributed most of the *sympathies* and *antipathies* observable in men, which work as strongly, and produce as regular effects, as if they were *natural;* and are therefore called so, though they at first had no other original but the *accidental* connexion of two ideas, which either the strength of the first impression, or future indulgence, so united, that they always afterwards kept company together in that man's mind, as if they were but one idea. I say, *most* of the antipathies,—I do not say *all;* for some of them are truly natural, depend upon our original constitution, and are born with us.

Instances.—The ideas of goblins and sprites have really no more to do with darkness than light; yet let but a foolish maid inculcate these often on the mind of a child, and raise them there together, possibly he shall never be able to separate them again so long as he lives; but darkness shall ever afterwards bring with it those frightful ideas, and they shall be so joined that he can no more bear the one than the other.

A man receives a sensible injury from another, thinks on the man and that action over and over, and, by ruminating on them strongly, or much, in his mind, so cements those two ideas together that he makes them almost one—never thinks on the man, but the pain and displeasure he suffered come into his mind with it, so that he scarce distinguishes them, but has as much an aversion for the one as the other. Thus hatreds are often begotten from slight and almost innocent occasions, and quarrels propagated and continued in the world.

A man has suffered pain or sickness in any place—he saw his friend die in such a room—though these [things] have *in nature* nothing to do with one another, yet when the idea of the place occurs to his mind, it brings (the impression being once made) that of the pain and displeasure with it; he confounds them in his mind, and can as little bear the one as the other.

Many children, imputing the pain they endured at school to the books they were corrected for, so join those ideas together that a book becomes their aversion, and they are never reconciled to the study and use of them all their lives after: and thus reading becomes a torment to them, which otherwise possibly they might have made the great pleasure of their lives.

Why time cures some disorders in the mind which reason cannot.—When this combination is settled, and whilst it lasts, it is not in the power of Reason to help us, and relieve us from the effects of it. Ideas in our minds, when they are there, will operate according to their natures and circumstances; and here we see the cause why *time* cures certain affections, which *reason*, though in the right and allowed to be so, has not power over, nor is able against them to prevail with those who are apt to hearken to it in other cases.

Influence [*of association*] *on intellectual habits.*—Intellectual habits and defects contracted [in] this way are not less frequent and powerful, though less observed.

Let the ideas of *being* and *matter* be strongly joined either by education or much thought—whilst these are still combined in the mind, what notions, what reasonings, will there be about separate Spirits!

Observable in different sects.—Some such wrong and unnatural combinations of ideas will be found to establish the irreconcileable opposition between different sects of philosophy and religion. For we cannot imagine *every one* of their followers to impose wilfully on himself, and knowingly refuse truth [when] offered. Interest, though it does a great deal in the case, yet cannot be thought to work whole societies of men to so universal a perverseness, as that every one of them to a man should knowingly maintain falsehood: some at least must be allowed to do what all pretend to, i. e. —to pursue truth sincerely; and therefore there must be *something* that blinds their Understandings, and makes them *not see* the falsehood of what they embrace for real truth. That which thus captivates their reason, and leads men of sincerity blindfold from common sense, will, when examined, be found to be what we are speaking of. Some *independent* ideas, of no alliance to one another, are, by education, custom, and the constant din of their party, so coupled in their minds, that they always appear there *together;* and they can no more separate them in their thoughts, than if they were but one idea; and they operate as if they were so. This gives sense to jargon, demonstration to absurdities, and consistency to nonsense; and is the foundation of the greatest (I had almost said of all the) errors in the world; or, if it does not reach so far, it is at least the most dangerous one, since, so far as it obtains, it hinders men from *seeing* and examining.

Conclusion.—Having thus given an account of the Original, Sorts, and Extent of our Ideas—with several other considerations about these (I know not whether I may say) *instruments*, or *materials*, of our Knowledge—the Method I at first proposed to myself would now require that I should immediately proceed to show what *use* the Understanding makes of them, and what Knowledge we have by them. This was that which, in the first general view I had of this subject, was all that I thought I should have to do: but, upon a nearer approach, I find that there is so close a connexion between Ideas and Words, and [that] our abstract *ideas* and general *words* have so constant a relation one to another, that it is impossible to speak clearly and distinctly of our Knowledge—which all consists in *propositions*—without considering, first, the nature, use, and signification of Language: which therefore must be the business of the next Book.

END OF SECOND BOOK.

BOOK III.

CHAPTER I.

OF WORDS OR LANGUAGE IN GENERAL.

Man fitted to form articulate sounds.—God, having designed man for a social creature, made him not only with an inclination and under a necessity to have fellowship with those of his own kind, but furnished him also with Language, which was to be the great instrument and common tie of society. Man, therefore, had by nature [1.] his organs so fashioned as to be fit to frame articulate sounds which we call Words. But this was not enough to produce Language; for several birds will be taught to make articulate sounds distinct enough, which yet are by no means capable of Language.

To make them signs of ideas.—Besides articulate sounds, therefore, [2.] it was farther necessary that he should be able to use these sounds as *signs* of internal conceptions; and to make them stand as marks for the ideas within his own mind, whereby they might be made known to others, and the thoughts of men's minds be conveyed from one to another.

To make general signs.—But neither was this sufficient to make Words so useful as they ought to be. It is not enough for the perfection of Language that sounds can be made signs of ideas, unless those signs can be so made use of as to *comprehend several particular* things; for the *multiplication* of Words would have perplexed their *use*, had every particular thing need of a distinct name to be signified by. To remedy this inconvenience, [3.] Language had yet a farther improvement in the use of *general* Terms, whereby one Word was made to mark a multitude of particular existences: which advantageous use of sounds was obtained only by the difference of the ideas they were made signs of; those names becoming general which are made to stand for general ideas, and those remaining particular where the ideas they are used for are particular.

Besides these names which stand for ideas, there [are] other words which men make use of, not to signify any idea, but the want or absence of some ideas simple or complex, or [of] *all* ideas together; such as are *nihil* in Latin, and, in English, 'ignorance' and 'barrenness.' All which negative or privative words cannot be said properly to belong to or signify *no* ideas—for then they would be perfectly insignificant sounds—but they *relate* to positive ideas, and signify their absence.

Words ultimately derived from such as signify sensible ideas.—It may also lead us a little towards the Original of all our *notions* and Knowledge, if we remark how great a dependence our words have on common *sensible* ideas; and how those which are made use of to stand for actions and notions quite removed from sense have their *rise* from thence, and, from obvious sensible ideas are transferred to more abstruse significations, and made to stand for ideas that come not under the cognizance of our senses: v. g. imagine, apprehend, comprehend, adhere, conceive, instil, disgust, disturbance, tranquillity, &c. are all words taken from the operations of *sensible* things, and applied to certain Modes of Thinking. Spirit, in its primary signification, is *breath;* angel, a *messenger:* and I doubt not but, if we could trace them to their sources, we should find, in all Languages, the names which stand for things that fall not under our senses to have had their first rise from *sensible* ideas. By which we may give some kind of guess what kind of *notions* they were, and whence derived, which filled their minds who were the first beginners of Languages; and how nature, even in the naming of things, unawares suggested to men the *originals* and principles of all their Knowledge: whilst to give names, that might make known to others any operations they felt in themselves, or any other ideas that came not under their senses, they were fain to *borrow* words from ordinary known ideas of Sensation; by that means to make others the more easily to conceive those operations they experi-[enced] in themselves, which made no outward sensible appearances; and then, when they had got known and agreed names to signify those internal operations of their own minds, they were sufficiently furnished to make known by Words all their other ideas: since *they* could consist of nothing but either [1.] of outward sensible perceptions, or [2.] of the inward operations of their minds about them.

Distribution.—But, to understand better the use and force of Language as subservient to instruction and Knowledge, it will be convenient to consider,—

First, To what it is that *names*, in the use of Language, are *immediately* applied.

Secondly, Since all (except *proper*) names are *general*, and so stand not particularly for this or that single thing, but for *sorts* and ranks of things, it will be necessary to consider, in the next place, what the sorts and kinds—or, what the *species* and *genera*—of things are, wherein they consist, and how they come to be made. These being well looked into, we shall the better come to find [1.] the right use of *Words;* [2.] the natural advantages and defects of *Language;* and [3.] the *remedies* that ought to be used to avoid the inconveniences of obscurity or uncertainty in the signification of Words; without which it is impossible to discourse with any clearness or order concerning Knowledge: which, being conversant about *propositions*, and those most commonly *universal* ones, has greater connexion with Words than perhaps is suspected.

◆

CHAPTER II.

OF THE SIGNIFICATION OF WORDS.

Words are sensible signs necessary for communication.—Though Man has great variety of thoughts, and such from which others as well as himself might receive profit and delight, yet they are all within his own breast, invisible, and hidden from others; nor can [they] of *themselves* be made appear. The comfort and advantage of society not being to be had without *communication* of thoughts, it was necessary that man should find some *external sensible signs*, whereby those invisible ideas which his thoughts are made up of might be made known to others. For this purpose nothing was so fit, either for plenty or quickness, as those articulate sounds which, with so much ease and variety, he found himself able to make. Thus we may conceive how Words, which were by nature so well adapted to that purpose, come to be made use of by men as the *signs* of their ideas; not by any *natural* connexion that there is between particular articulate sounds and certain ideas—for then there would be but one Language amongst all men—but by a *voluntary* imposition, whereby such a word is made arbitrarily the mark of such an idea. The *use*, then, of Words is—to be sensible marks of ideas; and *the ideas they stand for* are their *proper* and *immediate* signification.

Words are the sensible signs of his ideas who uses them. —The use men have of these marks being either [1.] to record their own thoughts for the assistance of their own memory; or, [2.], as it were, to bring out their ideas and lay them before the view of others; Words in their *primary* or *immediate* signification stand for nothing but the ideas *in the mind* of him that uses them; how imperfectly soever or carelessly those ideas are collected from the things which they are supposed to represent. When a man speaks to another, it is that he may be *understood;* and the end of speech is, that those sounds, as marks, may make known his ideas to the hearer. That, then, which Words are the marks of [is]—the *ideas of the speaker:* nor can any one apply them, as marks, *immediately* to any thing else but the ideas that he himself has. For, this would be to make them signs of his own conceptions, and yet apply them to other ideas; which would be to make them signs and not signs of his ideas at the same time; and so, in effect, to have no signification at all. Words being voluntary signs, they cannot be voluntary signs imposed by him on things he knows not. That would be to make them signs of nothing—sounds without signification. A man cannot make his words the signs either of qualities in things, or of conceptions in the mind of another whereof he has none in his own. Until he has some ideas of his own, he cannot suppose them to correspond with the conceptions of another man; nor can he use any signs for them: for thus they would be the signs of he knows not what; which is in truth to be the signs of nothing. But when he represents to himself other men's ideas by some of his own, if he consent to give them the same names that other men do, [he gives such] *to his own* ideas—to ideas that he has, and not to ideas that he has not.

This is so necessary in the use of Language, that, in this respect, the knowing and the ignorant, the learned and unlearned, use the words they speak (with any meaning) all alike. They, in every man's mouth, stand for the ideas he has, and which he would express by them. A child, having taken notice of nothing in the metal he hears called *gold* but the bright shining yellow colour, applies the word *gold* only *to his own* idea of that colour, and [to] nothing else; and therefore calls the same colour in a peacock's tail—*gold.* Another, that has better observed, adds to shining yellow—great weight: and then the sound *gold,* when *he* uses it, stands for a complex idea of a shining yellow and very weighty substance. Another adds to those qualities fusibility: and then the word *gold* to *him* signifies a body, bright, yellow, fusible, and very heavy. Another adds malleability. Each of these *uses* equally the word *gold*, when they [severally] have occasion to express the idea which they have applied it to: but it is evident that each can apply it only to *his own* idea; nor can he make it stand as a sign of such a complex idea as he has not.

Words often secretly referred [*otherwise*].—But though Words, as they are used by men, can properly and immediately signify nothing but the ideas that are in the mind of the speaker, yet [men] in their *thoughts* give them a secret reference to two other things.

To ideas in other men's minds.—First, They suppose their Words to be marks of the ideas in the minds also *of other* men, with whom they communicate: for else they should talk in vain, and could not be *understood*, if the sounds they applied to one idea were such as by the hearer were applied to another—which is to speak two languages. But in this men stand not usually to examine whether the idea [which] they and those they discourse with *have* in their minds be the same; but think it enough that they use the word, as they imagine, in the common acceptation of that language: in which they suppose that the idea they make it a sign of is precisely the same [as that] to which the understanding men of that country apply that name.

To the reality of things.—Secondly, Because men would not be thought to talk barely of their own imaginations, but of *things* as really they are, therefore they often suppose their Words to stand also for—*the reality* of things. But this relates more particularly to Substances and their names; as perhaps the former does to Simple Ideas and Modes. But it is a perverting [of] the use of Words whenever we make them stand for anything but *ideas* in our own minds.

Words by use readily excite ideas.—Concerning Words also it is farther to be considered—*First*, That there comes, by constant use, to be such a connexion between certain sounds and the ideas they stand for, that the *names* heard almost as readily *excite* certain ideas as if the objects themselves which are apt to produce them did actually affect the senses. Which is manifestly so in all obvious *sensible* Qualities; and in all Substances that frequently and familiarly occur to us.

Words often used without signification.—*Secondly*, Because—by familiar use from our cradles, we come to learn certain articulate sounds very perfectly, but yet are not always careful to examine or settle their *significations* perfectly—it often happens that men, even when they would apply themselves to an attentive consideration, set their thoughts more on Words than *things*. Nay—because words are, many of them, learned *before* the ideas are known for which they stand—some, not only children, but men, speak several words no otherwise than parrots do, only because they have learned them, and have been accustomed to those sounds. But so far as Words are of use and *signification*, so far is there a constant connexion between the sound and the idea; and a designation that the one stands for the other: without which *application* of them, they are nothing but so much insignificant noise.

Their signification perfectly arbitrary.—Words, by long and familiar use, as has been said, come to excite in men certain ideas so *constantly* and *readily*, that [we] are apt to suppose a *natural connexion* between them [i. e. between *words* and *ideas*]. But that they signify only men's peculiar ideas—and *that* by a perfectly arbitrary imposition—is evident in that [1.] they often fail to excite in others (even that use the same language) the same ideas we take them to be the signs of; and [2.] every man has so inviolable a liberty to make Words stand for what ideas he pleases, that no one *has the power* to make others have the same ideas in their minds that he has, when they use the same words that he does. And therefore the great Augustus himself, in the possession of that power which ruled the world, acknowledged he could not *make* a new Latin word: which was as much as to say that he could not *arbitrarily appoint* what *idea* any *sound* should be a *sign* of in the mouths and common language of his subjects. It is true, common use, by a tacit consent, *appropriates* certain sounds to certain ideas in all Languages; which so far limits the signification of that sound, that unless a man applies it to the same idea he does not speak *properly:* and let me add, that unless a man's words excite the same ideas in the hearer which he makes them stand for in speaking, he does not speak *intelligibly.* But whatever be the consequence of any man's using words differently—either from their general meaning, or [from] the particular sense of the person to whom he addresses them—this is certain—their *signification*, in *his* use of them—is limited to *his ideas;* and they can be signs of nothing else.

CHAPTER III.

OF GENERAL TERMS.

The greatest part of words general.—All things that exist being *particulars*, it may perhaps be thought reasonable that Words, which ought to be conformed to things, should be so too—I mean in their *signification;* but yet we find quite the contrary. The greatest part of Words that make all Languages are *general* Terms: which has not been the effect of neglect or chance, but of Reason and *necessity.*

For every particular thing to have a name is impossible.—First, It is *impossible* that every particular thing should have a distinct peculiar name. For, the signification and use of Words depending on that connexion which the mind makes between its ideas and the sounds it uses as signs of them, it is necessary, in the application of names to things, that the mind should [1.] *have* distinct ideas of the things, and [2.] *retain* also the particular name that belongs to every one, with its peculiar appropriation to that idea. But it is beyond the power of human capacity to frame and retain distinct ideas of all the particular things we meet with: every bird and beast men saw—every tree and plant that affected the senses—could not find a place in the most capacious understanding. If it be looked on as an instance of a *prodigious* memory, that some generals have been able to call every soldier in their army by his proper name, we may easily find a reason [*a fortiore*] why men have never attempted to give names to each sheep in their flock, or crow that flies over their heads; much less to call every leaf of plants or grain of sand that came in their way by a peculiar name.

And useless.—*Secondly,* If it were possible, it would yet be *useless;* because it would not serve to the chief end of Language. Men would in vain heap up names of particular things, that would not serve them to *communicate* their thoughts. Men learn names, and use them in talk with others, only that they may be understood: which is then only done when, by use or consent, the sound I make by the organs of speech excites, in another man's mind who hears it, the idea I apply it to in mine when I speak. This cannot be done by names applied to particular things whereof—I alone having the ideas in my mind—the names could not be significant or intelligible to another, who was not acquainted with all those very particular things which had fallen under my notice.

Thirdly, But yet, granting this also feasible (which I think is not), a distinct name for every particular thing would not be of any great use for the *improvement* of Knowledge: which, though founded in particular things, enlarges itself by general views, to which things reduced into *sorts* under general names are properly subservient. These, with the names belonging to them, come within some compass; and do not multiply, every moment, beyond what either the mind can contain or [what] use requires. And therefore in these, men have for the most part stopped: but yet not so as to hinder themselves from distinguishing particular things by appropriated names, where convenience demands it. And therefore, in their own species which they have most to do with, and wherein they have often occasion to mention particular persons, they make use of Proper Names; and *there* distinct individuals have distinct denominations.

What things have proper names.—Besides persons—countries also, cities, rivers, mountains, and other the like distinctions of Place, have usually found peculiar names, and that for the same reason; they being such as men have often an occasion to *mark* particularly, and, as it were, set before others in their discourses with them. And I doubt not but, if we had reason to mention particular horses as often as we have to mention particular men, we should have proper names for the one as familiar as for the other; and Bucephalus would be a word as much in use as Alexander. And therefore we see that amongst jockeys horses have their proper names to be known and distinguished by, as commonly as their servants; because amongst *them* there is often *occasion* to mention this or that particular horse when he is out of sight.

How general words are made.—The next thing to be considered is, how *general* Words come to be made. For, since all things that exist are only particulars, *how* come we by *general terms*, or *where* find we those *general natures* they are supposed to stand for? Words become *general* by being made the signs of general ideas: and Ideas become *general* by separating from them the circumstances of time and place, and any other ideas that may determine them to *particular* existence. By this way—of Abstraction—they are made capable of representing more individuals than one; each of which, having in it a conformity to that abstract idea, is (as we call it) *of that sort.*

But, to deduce this a little more distinctly—it will not perhaps be amiss to trace our notions and names from their beginning, and observe by what degrees we proceed, and by what steps we enlarge our ideas from our first infancy. There is nothing more evident than that the ideas of the persons children converse with (to instance in them alone), are, like the persons themselves, only *particular.* The ideas of the nurse and the mother are well framed in their minds; and, like pictures of them there, represent only *those* individuals. The *names* they first gave to them are [similarly] confined to these individuals; and the names of 'nurse' and 'mamma' [which] the child uses, determine themselves to those persons. Afterwards, when time and a larger acquaintance have made them *observe* that there are a great *many other* things in the world, that, in some *common agreements* of shape and several other qualities, *resemble* their father and mother and those persons they have been used to, they frame an idea which they find those many particulars *partake in;* and to that they give, with others, the name 'man,' for example. And thus they come to have a *general* name, and a *general* idea. Wherein they make nothing new, but only *leave out* of the complex idea that which is *peculiar* to each [person], and *retain* only what is *common* to them all.

By the same way that they come by the *general* name and idea of 'man,' they easily advance to *more* general names and notions. For, observing that several things that differ from their idea of 'man,' and cannot therefore be comprehended under that name, have yet *certain* qualities wherein they *agree with* man, by retaining only *those* qualities, and uniting *them* into one idea, they have again another and a more general idea; to which having given a name, they make a term of a more comprehensive extension: which new idea is made, not by any new addition, but only, as before, by leaving out the shape and some other properties signified by the name 'man,' and retaining only a body, with life, sense, and spontaneous motion, comprehended under the name 'animal.'

General natures are nothing but abstract ideas.—He that thinks *general* Natures or Notions are anything else but such abstract and partial ideas of more complex ones, *taken at first from particular existences*, will, I fear, be at a loss where to find them. For, let any one reflect, and then tell me wherein does his idea of 'man' differ from that of 'Peter' and 'Paul', or his idea of 'horse' from that of 'Bucephalus,' but in the *leaving out* something that is *peculiar* to each individual, and *retaining* so much of those particular complex ideas of several particular existences as they are found to *agree* in? To conclude: this whole mystery of *genera* and *species*—which make such a noise in the Schools, and are, with justice, so little regarded out of them—is nothing else but abstract ideas, more or less comprehensive, with names annexed to them. In all which, this is constant and [in]variable—that every *more general* Term stands for such an idea as is *but a part of* any of those contained under it.

Why the genus is ordinarily made use of in definitions.—This may show us the reason why, in the *defining* of Words, which is nothing but declaring their signification, we make use of the *genus*, or *next* general Word that comprehends it. Which is not out of necessity, but only to save the labour of enumerating the several simple ideas which the next general Word—or *genus*—stands for; or perhaps sometimes the shame of not being able to do it. But though defining by *genus* and *differentia* be the shortest way, yet, I think, it may be doubted whether it be the best. This I am sure of—it is not the only [way]; and so not absolutely necessary. For, Definition being nothing but making another understand by Words *what idea* the Term defined stands for, a Definition is best made—by enumerating those simple ideas that are combined in the signification of the Term defined: and if instead of such an enumeration men have accustomed themselves to use the *next* general term, it has not been out of necessity or for greater clearness, but for quickness and dispatch sake. For, I think, that to one who desired to know what idea the word 'man' stood for, if it should be said, that man was a solid, extended substance, having life, sense, spontaneous motion, and the faculty of reasoning, I doubt not but the meaning of the term 'man' would be as well understood, and the idea it stands for be at least as clearly made known, as when it is defined to be a 'rational animal;' which, by the several definitions of 'animal,' 'vivens,' and 'corpus,' *resolves itself* *into* those enumerated ideas. I have, in explaining the term 'man,' followed here the ordinary [technical] definition; which though, perhaps, not the most exact, yet serves well enough to my present purpose. And one may, in this instance, see what gave occasion to the rule that a Definition must consist of *genus* and *differentia:* and it suffices to show us the little necessity there is of such a rule, or advantage in the strict observing of it. For Definition, as has been said, being only the explaining of one word by several others, so that the meaning or idea it stands for may be certainly known, Languages are not always so made according to the rules of logic that *every* Term *can* have its signification exactly and clearly expressed by *two* others. Experience sufficiently satisfies us to the contrary; or else those who have made this rule have done ill, that they have given us *so few* definitions conformable to it. But of definitions more in the next Chapter.

Abstract ideas are the essences of the genera and species. —The next thing to be considered is—what *kind* of signification it is that *general* Words have. For as it is evident that they do not signify *barely one* particular thing (for then they would not be *general* Terms, but Proper Names), so on the other side it is as evident they do not signify a *plurality;* for 'man' and 'men' would then signify the same, and the distinction of 'numbers' (as grammarians call them), would be superfluous and useless. That, then, which *general* Words signify is,—a *sort* of Things; and each of them does *that* by being a *sign* of an Abstract Idea in the mind; to which Idea as things existing are found to agree, so they come to be *ranked under* that Name; or [to] be of that *sort.* Whereby it is evident, that the Essences of the *sorts* or *species* of things, are nothing else but these Abstract Ideas. For *the having* the Essence of any *species* being that which makes anything *to be of* that *species*, and the conformity to the idea to which the *name* is annexed being that which gives a right to *that name*, the having the Essence, and the having that conformity, must needs be the same thing; since *to be* of any *species*, and to have a right to the *name* of that *species*, is all one. As, for example: *to be* a man, or of the *species* man, and to have a right to the *name* 'man,' is the same thing. Again: *to be* a man, or of the *species* man, and have the Essence of a man, is the same thing. Now, since nothing can be a man, or have a right to the name 'man,' but what has a conformity to the Abstract Idea the name 'man' stands for—nor anything be a man, or have a right to the *species* man, but what has the Essence of that *species*—it follows, that the Abstract Idea for which the *name* stands, and the Essence of the *species*, is one and the same. From whence it is easy to observe, that the Essences of the *sorts* of things, and consequently the *sorting* of things, is the workmanship of the *Understanding* that abstracts and makes those general ideas.

They are the workmanship of the understanding, but have their foundation in the similitude of things.—I would not here be thought to forget, much less to deny, that nature, in the production of things, makes several of them alike: there is nothing more obvious, especially in the races of animals, and all things propagated by seed.

But yet, I think, we may say, the *sorting* of them under names is the workmanship of the Understanding, taking occasion, from the *similitude* it observes amongst them, to make Abstract General Ideas, and set them up in the mind with names annexed to them, as patterns or *forms*—for in that sense the word 'form' has a very proper signification—to which as particular things existing are found to agree, so they come to be of that *species*—have that denomination—or are put into that *classis*. And when *general* Names have any connexion with *particular* Beings, these Abstract Ideas are the *medium* that unites them: so that the Essences of *species*, as distinguished and denominated by us, neither are, nor can be, any thing but those precise Abstract Ideas we have in our minds. And therefore the supposed *real* Essences of Substances, if different from our Abstract Ideas, cannot be the Essences of the *species* we rank things into. For two *species* may be one as rationally as two different Essences [may] be the Essence of one *species:* and I demand, what are the *alterations* [that] may or may not be in a 'horse' or 'lead,' without making either of them to be of another *species?* In determining the *species* of things by our Abstract Ideas, this is easy to resolve. But if any one will regulate himself herein by supposed *real* Essences, he will, I suppose, be at a loss: and he will never be able to know when anything precisely ceases to be of the *species* of 'horse' or 'lead.'

Each distinct abstract idea is a distinct essence.—Nor will any one wonder that I say, these Essences or Abstract Ideas (which are the measures of *name*, and the boundaries of *species*) are the workmanship of the Understanding, who considers that at least the complex ones are often, in several men, *different collections* of simple ideas: and therefore that is covetousness to one man which is not so to another. Nay, even in Substances, where their Abstract Ideas seem to be taken from the things themselves, they are not constantly the same; no, not in that *species* which is most familiar to us, and with which we have the most intimate acquaintance: it having been more than once doubted, whether [an immature human offspring] were a 'man,' [and] even whether or not it were to be nourished and baptized: which could not be if the Abstract Idea or Essence to which the name 'man' belonged were of *nature's* making; and were not the uncertain and various collection of simple ideas, which the *Understanding* puts together, and then, abstracting it, affixes a name to it. So that in truth every distinct Abstract Idea is a distinct Essence: and the names that stand for such distinct ideas are the names of things *essentially* different. Thus, a circle is as *essentially* different from an oval as a sheep from a goat, and rain is as *essentially* different from snow as water from earth; that Abstract Idea which *is* the Essence of one being impossible to be communicated to the other. And thus any two Abstract Ideas, that in any part vary one from another, with two *distinct names* annexed to them, constitute two *distinct sorts* or *species*, as *essentially* different as any two the most remote or opposite in the world.

Real and nominal essences.—But since the Essences of things are thought by some (and not without reason) to be wholly unknown, it may not be amiss to consider the several significations of the word Essence.

First, Essence may be taken for—the Being of anything, whereby *it is* what it is. And thus the *real* internal (but, generally in Substances, unknown) *constitution* of things, whereon their discoverable qualities depend, may be called their 'Essence.' This is the proper, original signification of the word, as is evident from the formation of it; *essentia*, in its primary notation, signifying properly 'being.' And in this sense it is still used when we speak of the Essence of *particular things* without giving them any *name*.

Secondly, The learning and disputes of the Schools having been much busied about *genus* and *species*, the word Essence has almost lost its *primary* signification; and, instead of the *real constitution of things*, has been almost wholly applied to the artificial *constitution of genus* and *species*. It is true, there is ordinarily supposed a real constitution of the *sorts* of things: and it is past doubt there must be *some real* constitution, on which any collection of simple ideas co-existing must depend. But it being evident that things are ranked under names into *sorts* or *species* only as they *agree to* certain Abstract Ideas to which we have annexed those names, the Essence of each *genus* or *sort* comes to be nothing but that Abstract Idea, which the general or 'sortal' (if I may so call it from "sort," as I do 'general' from "genus") name stands for. And this we shall find to be that which the word Essence imports in its most *familiar* use. These two *sorts* of Essences, I suppose, may not unfitly be termed, the one the Real, the other the Nominal Essence.

Constant connexion between the name and nominal es-

sence.—Between the Nominal Essence and the *name* there is so near a connexion, that the name of any sort of things cannot be attributed to any particular being but [that which] has this Essence, whereby it answers that Abstract Idea whereof that *name* is the *sign.*

Supposition that species are distinguished by their real essences useless.—Concerning the Real Essences of *corporeal* Substances (to mention those only) there are, if I mistake not, two opinions. [1.] The one is of those who, using the word Essence for they know not what, suppose *a certain number* of those Essences, *according to* which all natural things are made, and wherein they do exactly every one of them partake, and so become of this or that *species.* [2.] The other and more rational opinion is of those who look on all natural things to have a *real,* but *unknown Constitution* of their insensible parts, from which flow those *sensible Qualities* which serve us to distinguish them one from another, according as we have occasion to rank them into *sorts* under common denominations. The former of these opinions has, I imagine, very much perplexed the knowledge of natural things. The frequent productions of *monsters,* in all the species of animals, and of changelings, and other strange issues of human birth, carry with them difficulties not possible to consist with this hypothesis: since it is as impossible that two things, partaking exactly of the same Real Essence, should have different *properties,* as that two Figures partaking of the same Real Essence of a circle should have different properties. But were there no other reason against it, yet the *supposition* of Essences that cannot be known—and the making them nevertheless to be that which distinguishes the *species* of things—is so wholly *useless* and unserviceable to any part of our Knowledge, that that alone were sufficient to make us lay it by, and content ourselves with such Essences of the *sorts* or *species* of things as come within the reach of our Knowledge: which, when seriously considered, will be found, as I have said, to be nothing else but those Abstract Complex Ideas to which we have annexed distinct *general names*..

Real and nominal essences, the same in simple ideas and modes, different in substances.—Essences being thus distinguished into Nominal and Real, we may farther observe, that in the *species* of Simple ideas and Modes, they are always the *same:* but in Substances, always quite *different.* Thus a Figure including a space between three lines is the *real* as well as *nominal* Essence of a triangle: it being not only the Abstract Idea to which the general name is annexed, but the very *essentia*—or 'being,' of the thing itself,—that foundation from which all its properties flow, and to which they are all inseparably annexed. But it is far otherwise concerning that parcel of matter which makes the ring on my finger, wherein these two Essences are apparently different. For it is the *real constitution* of its insensible parts—on which depend all those properties of colour, weight, fusibility, fixedness, &c.—which makes it to be *gold*, or gives it a right to that name, [and] which is therefore its Nominal Essence; since nothing can be called *gold* but what has a conformity of qualities to that Abstract Complex Idea, to which that *name* is annexed.

Essences ingenerable and incorruptible.—That such Abstract Ideas with names to them, as we have been speaking of, are Essences, may farther appear by what we are told concerning Essences; viz, that they are all *ingenenerable* and *incorruptible.* Which cannot be true of the *real constitutions* of things, which begin and perish with them. All things that exist, [except] their Author, are liable to change; especially those things we are acquainted with, and have ranked into bands, under distinct names or ensigns. Thus, that which was grass to-day is to-morrow the flesh of a sheep; and, within few days after, becomes part of a man; in all which and the like changes, it is evident their *real* Essence, i. e. that constitution whereon the properties of these several things depended, is destroyed, and perishes with them. But Essences being taken for *ideas established in the mind,* with names annexed to them, they are supposed to remain steadily the same, whatever mutations the particular substances are liable to. For whatever becomes of Alexander and Bucephalus, the ideas to which 'man' and 'horse' are annexed are supposed, nevertheless, to remain the same; and so the Essences of those *species* are preserved whole and undestroyed, whatever changes happen to any or all of the individuals of those *species.* By th[ese] means the Essence of a *species* rests safe and entire, without the *existence* of so much as *one* individual of that kind. For were there now no circle existing anywhere in the world (as, perhaps, that figure exists not anywhere *exactly* marked out), yet the *idea annexed to* that name would not cease to be what it is; nor cease to be as a pattern, to determine which of the particular figures we meet with, has, or has not, a right to the name 'circle,' and so to show which of them, by having that Essence [is] of that *species*. And though there neither were, nor had been, in nature such a beast as a 'unicorn,' or such a fish as a 'mermaid,' yet, supposing those names to stand for Complex Abstract Ideas, that contained *no inconsistency* in them, the Essence of a 'mermaid' is as intelligible as that of a 'man;' and the idea of a 'unicorn,' as certain, steady, and permanent as that of a 'horse.' From what has been said, it is evident, that the doctrine of the *immutability* of Essences proves them to be only Abstract Ideas; and is founded on the relation established between them, and certain sounds as signs of them; and will always be true, as long as the same name can have the same signification.

◆

CHAPTER IV.

OF THE NAMES OF SIMPLE IDEAS.

Names of simple ideas, modes, and substances, have each something peculiar.—Though all Words, as I have shown, signify nothing *immediately* but the ideas in the mind of the speaker, yet, upon a nearer survey, we shall find that the names of Simple Ideas, Mixed Modes (under which I comprise Relations, too), and Natural Substances, have each of them something *peculiar* and different from the other. For example:—

Names of simple ideas and substances intimate real existence.—*First*, The names of Simple Ideas and Substances, with the Abstract Ideas in the mind which they immediately signify, intimate also some *real existence*, from which was derived their original pattern. But the names of Mixed Modes terminate in the idea that is in the mind, and lead not the thoughts any farther; as we shall see more at large in the following Chapter.

Names of simple ideas and modes signify always both real and nominal essence.—Secondly, The names of Simple Ideas and Modes signify always the *real as well as nominal* Essence of their *species*. But the names of Natural Substances signify rarely, if ever, anything but barely the Nominal Essences of those *species*.

Names of simple ideas undefinable.—Thirdly, The names of Simple Ideas are not capable of Definition: the names of all Complex Ideas are. It has not, that I know, hitherto been taken notice of by anybody—what Words are, and what are not, capable of being *defined:* the want whereof is (as I am apt to think) not seldom the occasion of great wrangling and obscurity in men's discourses; whilst some demand definitions of terms that cannot be defined, and others think they ought to rest satisfied in an explication made by a more general word and its restriction (or, to speak in terms of art, by a *genus* and *difference*); when, even after such Definition made according to rule, those who hear it have often no more a clear conception of the meaning of the Word than they had before. This at least I think—that the showing what Words are, and what are not, capable of Definition, and wherein consists a *good* Definition, is not wholly beside our present purpose; and perhaps will afford so much light to the nature of these signs and our ideas, as to deserve a more particular consideration.

What a definition is.—I think it is agreed, that a Definition is nothing else but—the *showing the meaning* of one Word by several not synonymous Terms. The meaning of words being only the ideas they are made to stand for by him that uses them, the meaning of any term is then shown, or the word is defined, when by other words the idea it is made the sign of and annexed to in the mind *of the speaker*, is, as it were, represented or set before the view *of another;* and thus its signification ascertained. This is the only use and end of Definitions; and therefore the only measure of what is or is not a good Definition.

Simple ideas, why undefinable.—This being premised, I say, that the names of simple ideas—and *those only*—are *incapable* of being Defined. The reason whereof is this, that the several terms of a Definition signifying several ideas, can by no means all together represent an idea which has *no composition:* and therefore a Definition can have no place in the names of Simple Ideas.

Instances: motion.—The not observing this difference in our ideas and their names has produced that eminent trifling in the Schools, which is so easy to be observed in the Definitions they give us of some few of these Simple ideas: [as, for instance, in the Peripatetic Definition of *Motion*]—*actus entis in potentiâ, quatenus in potentiâ.*

Nor have the modern philosophers, who have endeavoured to speak intelligibly, much better succeeded in *defining* Simple ideas, whether by explaining their causes, or otherwise. The atomists, who define motion to be—'a passage from one place to another,' what do they more than put one synonymous word for another? For what is '*passage*' other than *motion?* And if they were asked what '*passage*' was, how would they better define it than by '*motion*'? For is it not at least as proper and significant to say, 'Passage is a motion from one place to another,' as to say, 'Motion is a passage'? &c. This is to *translate*, and not to *define*—when we change two words of the same signification one for another; which, when one is better understood than the other, may serve to discover what idea the unknown stands for; but is very far from a *definition*, unless we will say, every English word in the dictionary is the *definition* of the Latin word it answers; and that 'motion' is a definition of '*motus*.' Nor will the successive application of the parts of the superficies of one body to those of another, which the Cartesians give us, prove a much better definition of Motion, when well examined.

Light.—"The act of perspicuous, as far forth as perspicuous"—is another Peripatetic Definition of a Simple idea; which, though not more absurd than the former (of motion), yet betrays its uselessness and insignificancy more plainly; because experience will easily convince any one, that it cannot make the meaning of the word 'light' (which it pretends to define) at all understood by a blind man: but the definition of *motion* appears not at first sight so useless, because it escapes *this way* of trial. For this simple idea entering by touch *as well as* [by] sight, it is impossible to *show an example* of any one, who has *no other* way to get the idea of Motion but barely by the definition of that name.

Simple ideas, why undefinable, farther explained.—Simple ideas, as has been shown, are only to be got by those impressions [which] objects themselves make on our minds by the proper inlets appointed to each sort. If they are not received [in] this way, all the *words* in the world made use of to explain or *define* any [one] of their *names* will never be able to produce in us *the idea* it stands for. For, Words, being sounds, can produce in us no other simple ideas than of those very sounds, nor excite any in us but by that voluntary connexion which is known to be between them and those simple ideas which common use has made them signs of. He that thinks otherwise, let him try if any *words* can give him the *taste* of a pine-apple, and make him have the *true idea* of [that] relish. So far as he is told it has *a resemblance* with any tastes whereof he has the ideas already in his memory—imprinted there by sensible objects not strangers to his palate—so far may he approach that resemblance in his mind. But this is not giving us that idea by a Definition, but exciting in us other simple ideas by their known names; which will be still very different from the true taste of that fruit itself. In light and colours, and all other simple ideas, it is the same thing: for the signification of sounds is not *natural*, but only imposed and *arbitrary*. And therefore he that has not before received into his mind, by the proper inlet, the simple *idea* which any Word stands for, can never come to know the *signification* of that Word by any other Words or sounds whatsoever put together according to any rules of Definition. The only way is, by applying to his senses the proper object; and so producing that idea in him for which he has learned the name already. A studious blind man, who had made use of the explication of his books and friends to understand those names of light and colour which often came in his way, [once boasted] that he now understood what 'scarlet' signified. Upon which his friend demanding what scarlet was? the blind man answered,—it was 'like the *sound* of a trumpet'! Just such an understanding of the name of any other simple idea will he have who hopes to get it *only* from a Definition, or—other words made use of to explain it.

The contrary shown in complex ideas by instances of a statue and rainbow.—The case is quite otherwise in Complex ideas; which, consisting of several Simple ones, it is in the power of words, standing for the several ideas that make that composition, to imprint in the mind, [though they] were never there before; and so make their names be understood. In such collections of ideas passing under one name, Definition,—or the teaching the signification of one word by several others—has place; and may make us understand the names of things which never came within the reach of our senses, and frame ideas suitable to those in other men's minds, when they use those names: provided that *none* of the Terms of the Definition stand for any simple ideas which he to whom the explication is made *has never yet had* in his thought. Thus the word 'statue' may be explained to a blind man by other words, when 'picture' cannot; his senses having given him the idea of *figure*, but not of *colours*, which therefore words cannot excite in him.

When any term stands for an idea [which] a man is acquainted with but is ignorant that *that term* is the sign of it, there *another name*, of the *same idea* which he has been accustomed to, may make him understand its meaning. But in no case whatsoever is *any* Name of *any* Simple Idea capable of a Definition.

Names of simple ideas least doubtful.—*Fourthly*, But though the names of Simple ideas have not the help of Definition to determine their signification, yet that hinders not but that they are generally *less doubtful* and *uncertain* than those of Mixed Modes and Substances; because, they standing only for *one simple perception*, men, for the most part, easily and perfectly *agree* in their signification; and there is little room for mistake and wrangling about their meaning. There is neither a *multiplicity* of simple ideas to be put together, which makes the doubtfulness in the names of Mixed Modes: nor a *supposed*, but an *unknown*, real Essence (with properties depending thereon, the precise number whereof is also unknown) which makes the difficulty in the Names of Substances.

Simple ideas have few ascents in line â prædicamentali.—*Fifthly*, This farther may be observed concerning simple ideas and their names, that they have but few ascents *in lineâ prædicamentali* (as they call it)—from the lowest *species* to the *summum genus*. The reason whereof is—that the lowest *species* being but one Simple idea, nothing can be left out of it, that so, the *difference* being taken away, it may agree with some other thing in one idea common to them both; which, having one name, is the *genus* of the other two: v. g. nothing can be left out of the idea of white and red to make them agree in *one common* appearance, and so have one general name; as, *rationality* being left out of the complex idea of 'man,' makes it agree with 'brute,' in the more general idea and name of 'animal.' And therefore, when, to avoid unpleasant enumerations, men would comprehend both white and red, and several other such simple ideas, under one general name, they have been fain to do it by a word which denotes only *the way* [*by which* these ideas] get into the mind. For when white, red, and yellow are all comprehended under the genus or name *Colour*, it signifies no more but such ideas as are produced in the mind only by the *sight*, and have entrance only through the eyes. And when [men] would frame yet a more general term—to comprehend both colour and sounds, and the like simple ideas—they do it by a word that signifies all such as come into the mind only by one sense: and so the general term Quality, in its ordinary acceptation, comprehends colours, sounds, tastes, smells, and tangible qualities—with distinction from Extension, Number, Motion, Pleasure, and Pain, which make impressions on the mind, and introduce their ideas by more senses than one.

Names of simple ideas stand for ideas not at all arbitrary.—Sixthly, The Names of Simple Ideas, Substances, and Mixed Modes, have also this difference, that those of Mixed Modes stand for ideas perfectly *arbitrary:* those of Substances are not perfectly so, but refer to a pattern, though with some latitude: and those of Simple Ideas are perfectly taken from the existence of things, and are not at all arbitrary. Which—what difference it makes in the signification of their *names*—we shall see in the following Chapters.

The Names of Simple Modes differ little from those of Simple Ideas.

◆

CHAPTER V.

OF THE NAMES OF MIXED MODES AND RELATIONS.

They stand for abstract ideas, as other general names.—The Names of Mixed Modes, being *general*, stand, as has been shown, for *sorts* or *species* of things, each of which has its peculiar Essence. The Essences of these *species* also, as has been shown, are nothing but the Abstract Ideas in the mind, to which the *name* is annexed. Thus far the Names and Essences of Mixed Modes have nothing but what is common to them with other ideas: but if we take a little nearer survey of them, we shall find that they have something *peculiar* which perhaps may deserve our attention.

The ideas they stand for are made by the understanding.—The first particularity I shall observe in them is—that the Abstract ideas, or the Essences of the several *species* of Mixed Modes, are *made* by the Understanding: wherein they differ from those of Simple ideas.

Made arbitrarily, and without patterns.—In the next place, these Essences of the *species* of Mixed Modes are not only made by the mind, but made very *arbitrarily*—

made without patterns or reference to *any real existence;* wherein they differ from those of Substances, which carry with them the supposition of some real *being* from which they are taken, and to which they are conformable. It suffices here that men have put together such a collection into one Complex idea that makes the archetype and specific idea, whether any such [exists] *in rerum naturâ* or no.

How this is done.—To understand this aright, we must consider *wherein* the making of these Complex ideas *consists:* and that is not in the making any new idea, but [in] putting together those which the mind had before. Wherein the mind does these three things—*First,* It chooses a certain number. *Secondly,* It gives them connexion, and makes them into one idea. *Thirdly,* It ties them together by a *name.*

Evidently arbitrary, in that the idea is often before the existence.—Nobody can doubt that these ideas of Mixed Modes are made by a voluntary collection of ideas put together in the mind, independent [of] any original patterns in nature, who will but reflect that this sort of Complex ideas may be made, abstracted, and have Names given them, and so a *species* be constituted, *before* any one individual of that *species* ever existed. Whereby it is plain, how much the *sorts* of Mixed Modes are the creatures of the Understanding, where they have a being as subservient to all the ends of real Truth and Knowledge, as when they really exist: and we cannot doubt but law-makers have often made laws about species of actions which were only the creatures of their own understandings—beings that had no existence but in their own minds. And I think nobody can deny that "The Resurrection" was a species of Mixed Mode in the mind before it really existed.

But still subservient to the end of language.—But though these Complex ideas, or Essences of Mixed Modes, depend on the mind, and are made by it with great liberty, yet they are not made at random. Though these Complex ideas be not always copied from nature, yet they are always suited to the end for which Abstract ideas are made; and though they be combinations made of ideas that are loose enough, and have as little union *in themselves* as several other [ideas] to which the mind never gives a connexion that combines them into one idea, yet they are always made for the *convenience of communication*, which is the chief end of Language.

Whereof the [un]translatable words of divers languages are a proof.—A moderate skill in different Languages will easily satisfy one of the truth of this; it being so obvious to observe great store of Words in one Language, which have not any that answer them in another. This could not have happened if these *species* were the steady workmanship of nature, and not collections made and abstracted by the mind in order to naming, and for the convenience of communication. The terms of our law, which are not empty sounds, will hardly find words that answer them in the Spanish or Italian—no scanty languages: and the '*versura*' of the Romans, [and] '*corban*' of the Jews, have no words in other languages to answer them. Nay, if we will look a little more nearly into this matter, and exactly compare different Languages, we shall find that though they have words which, in translations and dictionaries, are supposed to answer one another, yet there is scarcely one of ten amongst the names of Complex ideas, especially of Mixed Modes, that stands for the same *precise* idea which the word does that in dictionaries it is rendered by. There are no ideas more common and less compounded than the measures of Time, Extension, and Weight; and the Latin names, '*hora*,' '*pes*,' '*libra*,' are, without difficulty, rendered by the English names 'hour,' 'foot,' and 'pound:' but yet there is nothing more evident than that the ideas [which] a Roman annexed to these Latin names were very far different from those which an Englishman expresses by those English ones. And if either of these should make use of the measures that those of the other language designed by their names, he would be quite out in his account. These are too sensible proofs to be doubted; and we shall find this much more so in the names of more abstract and compounded ideas; such as are the greatest part of those which make up moral discourses; whose names when men come curiously to compare with those they are translated into in other languages, they will find very few of them exactly to correspond in the whole extent of their significations.

This shows species to be made for communication.—The reason why I take so particular notice of this is, that we may not be mistaken about *genera* and *species* and their Essences, as if they were things regularly and constantly made by nature, and [having] a real existence in things; when they appear, upon a more wary survey, to be nothing else but *an artifice* of the Understanding, for the easier signifying such collections of ideas as it should often have occasion to communicate by one general term; under which, divers particulars, as far forth as they agreed to that abstract idea, might be comprehended. And if the doubtful signification of the word 'species' may make it sound harsh to some that I say the *species* of Mixed Modes are made by the Understanding, yet, I think, it can by nobody be denied, that *the mind makes* those abstract complex ideas, to which specific names are given. And if it be true, as it is, that the mind makes the patterns for sorting and naming of things, I leave it to be considered—who makes the boundaries of the sort or *species?* since with me 'species' and 'sort' have no other difference than that of a Latin and English idiom.

In mixed modes it is the name that ties the combinations together, and makes it a species.—The near relation that there is between Species, Essences, and their *general* Names, at least in Mixed Modes, will farther appear when we consider that it is the Name that seems to preserve those Essences, and give them their lasting duration. For, the connexion between the loose parts of those Complex ideas being made by the mind, this union which has no particular foundation in nature would cease again, were there not something that did, as it were, hold it together, and keep the parts from scattering. Though, therefore, it be the mind that makes the collection, it is the Name which is, as it were, the knot that ties them fast together. What a vast variety of different ideas does the word '*triumphus*' hold together, and deliver to us as one *species!* Had this name never been made, or [had it been] quite lost, we might, no doubt, have had descriptions of what passed in that solemnity; but yet, I think, that which holds those different parts together in the unity of one Complex idea is that very Word annexed to it; without which the several parts of that would no more be thought to make one thing than [those of the idea of] any other show which, having never been made but once, had never been united into one Complex idea under one denomination.

When a name is once annexed, wherein the parts of that complex idea have a settled and permanent union, then is the Essence, as it were, established, and the *species* looked on as complete. For to what purpose should the memory charge itself with such compositions, unless it were by Abstraction to make them general? And to what purpose make them general, unless it were that they might have general Names for the convenience of discourse and communication? Thus we see that killing a man with a sword or a hatchet [is] looked on as no distinct *species* of action: but if *the point* of the sword enter the body *first*, it passes for a distinct *species*, where it has a distinct name as in England, in whose language it is called 'stabbing:' but in another country where it has not happened to be specified under a peculiar name it passes not for a distinct *species*. But in the *species* of Corporeal Substances, though it be the mind that makes the Nominal Essence, yet since those ideas which are combined in it are supposed to have a union in nature, whether the mind joins them or not, therefore those are looked on as distinct species, without any operation of the mind either abstracting or giving a name to that complex idea.

For the originals of mixed modes we look no farther than the mind; which also shows them to be the workmanship of the understanding.—Conformably also to what has been said concerning the Essences of the *species* of Mixed Modes—that they are the creatures of the Understanding rather than the works of nature—we find that their *names* lead our thoughts to the *mind*, and no farther. When we speak of 'justice' or 'gratitude,' we frame to ourselves no imagination of anything *existing*, which we would conceive; but our thoughts *terminate in* the Abstract Ideas of those virtues, as they do when we speak of a 'horse' or 'iron,' whose specific ideas we consider not as barely in the mind, but as in things themselves, which afford the original patterns of those ideas. But in Mixed Modes, at least the most considerable parts of them, which are *moral beings*, we consider the original patterns as *being in* the mind; and to those we refer for the distinguishing of particular beings under names. And hence I think it is that these Essences of the *species* of Mixed Modes are by a more particular name called Notions, as by a peculiar right appertaining to the *Understanding.*

Their being made by the understanding without patterns shows the reason why they are so compounded.—Hence likewise we may learn, why the Complex ideas of Mixed Modes are commonly *more compounded* and decompounded than those of Natural Substances. Because they being the workmanship of the Understanding, pursuing only its own ends and the conveniency of expressing in short those ideas it would make known to another, it does with great liberty unite often into one Abstract idea things that in their nature have no coherence; and so under one term [joins] together a great variety of compounded and decompounded ideas. Thus the name of 'procession,' what a great mixture of independent ideas of persons, habits, orders, motions, sounds—does it contain in that complex one, which the mind of man has arbitrarily put together to express by that one name! Whereas the Complex ideas of the *sorts* of Substances are usually made up of only a small number of Simple ones; and in the *species* of animals, these two, viz. *shape* and *voice*, commonly make the whole Nominal Essence.

Names of mixed modes stand always for their real essences.—Another thing we may observe from what has been said is, that the Names of Mixed Modes always signify (when they have any determined signification) the Real Essences of their *species*. For, these abstract ideas being the workmanship of the mind, and not [being] referred to the real existence of things, there is no supposition of anything more signified by that name but barely that complex idea the mind itself has formed, which is all it would have expressed by it; and is that on which all the properties of the *species* depend, and from which alone they all flow: and so in these the Real and Nominal Essence is the same; which—of what concern it is to the certain Knowledge of general Truth—we shall see hereafter.

Why their names are usually got before their ideas.—This also may show us the *reason* why for the most part the *names* of Mixed Modes are got before the *ideas* they stand for are perfectly known. Because, there being no *species* of these ordinarily taken notice of but what have Names, and those *species*, or rather their Essences, being Abstract Complex ideas made arbitrarily by the mind, it is convenient, if not necessary, to know the names *before* one endeavour to frame these complex ideas. I confess that in the beginning of Languages it was necessary to have the *idea* before one gave it the *name:* and so it is still where—making a new Complex idea—one, also, by giving it a new name makes a new Word. But this concerns not Languages *made*, which have generally pretty well provided for ideas which men have frequent occasion to have and communicate: and in such I ask whether it be not the ordinary method that children learn the *names* of Mixed Modes before they have their ideas? What one of a thousand ever frames the abstract ideas of 'glory' and 'ambition' before he has heard the names of them? In Simple Ideas and Substances, I grant, it is otherwise; which being such ideas as have a *real existence* and union in nature, the ideas *or* names are got, one before the other, as it happens.

What has been said here of Mixed Modes is with very little difference applicable also to Relations; which every man may himself observe.

◆

CHAPTER VII.

OF PARTICLES.

Particles connect parts [*of sentences*] *or whole sentences together.*—Besides Words which are Names of ideas in the mind, there are a great many others that are made use of to signify the *connexion* that the mind gives to ideas or propositions, one with another. The mind, in communicating its thoughts to others, does not only need signs of the ideas it has then before it, but others also to show or intimate some particular action of its own at that time relating to those ideas. This it does [in] several ways—as 'is,' and 'is not,' are the general marks of the mind affirming or denying; [while] besides affirmation or negation, without which there is in Words no truth or falsehood, the mind does, in declaring its sentiments to others, connect not only the *parts* of propositions, but *whole sentences* one to another, with their several relations and dependencies, to make a coherent discourse.

In them consists the art of speaking well.—The Words whereby it signifies what *connexion* it gives to the several affirmations and negations that it unites in one continued reasoning or narration, are generally called Particles: and it is *in the right use of these* that more particularly consist—the clearness and beauty of a good Style. To think well it is not enough that a man has ideas clear and distinct in his thoughts, or that he observes the agreement or disagreement of some of them; but he must think *in train*, and observe the *dependence* of his thoughts and reasonings one upon another: and to express well such methodical and rational thoughts he must have Words to show what connexion, restriction, distinction, opposition, emphasis, &c., he gives to each respective part of his discourse. To mistake in any of these is to puzzle instead of informing his hearer: and therefore it is that those Words which are not truly by themselves the Names of *any* ideas, are of such constant and indispensable use in Language, and do much contribute to men's well expressing themselves.

They show what relation the mind gives to its own thoughts.—This part of grammar has been perhaps as much neglected as some others [have been] over-diligently cultivated. It is easy for men to write, one after another, of cases and genders, moods and tenses, gerunds and supines: in these and the like, there has been great diligence used; and Particles themselves in some Languages have been, with great show of exactness, ranked into their several orders. But though 'Prepositions' and 'Conjunctions,' &c., are names well known in grammar, and the Particles contained under them [are] carefully ranked into their distinct subdivisions, yet he who would show the right use of Particles, and what significancy and force they have, must take a little more pains, enter into his own thoughts, and observe nicely the several [positions] of his mind in discoursing.

Neither is it enough, for the explaining of these Words, to render them, as is usual in dictionaries, by words of another tongue which come nearest to their signification: for what is meant by them is commonly as hard to be understood in one as [in] another language. They are all marks of some action or intimation *of the mind;* and therefore to understand them rightly, the several views, stands, turns, limitations, and exceptions, and several other thoughts of the *mind*, for which we have either no names or very deficient [ones], are diligently to be studied. Of these there [is] a great variety, much exceeding the number of Particles that most languages have to express them by; and therefore it is not to be wondered that most of these Particles have diverse and sometimes almost opposite significations. In the Hebrew tongue there is a Particle consisting but of one single letter, of which there are reckoned up, as I remember, seventy—I am sure above fifty—several significations.

Instance in '*but.*'—'But' is a Particle—none more familiar—in our Language: and he that says it is a 'discretive conjunction,' and that it answers '*sed*' in Latin, or '*mais*' in French, thinks he has sufficiently explained it. But it seems to me to intimate several *relations* the mind gives to the several propositions or parts of them which it joins by this monosyllable.

First—'*But*, to say no more:' here it intimates a stop of the mind in the course it was going, before it came to the end of it.

Secondly—'I saw *but* two plants:' here it shows that the mind limits the sense to what is expressed with a negation of all other.

Thirdly [*and*] *Fourthly*—'You pray; *but* it is not that God would bring you to true religion, *but* that He would confirm you in your own:' the first of these 'buts' intimates a supposition in the mind of something otherwise than it should be; the latter shows that the mind makes a direct opposition between that and what goes before.

Fifthly—'All animals have *sense; but* a dog is an animal:' here it signifies little more but that the latter proposition is joined to the former, as the minor of a syllogism.

This matter but lightly touched here.—To these, I doubt not, might be added a great many other significations of this Particle, if it were my business to examine it in its full latitude, and consider it in all the places [where] it is to be found: which if one should do, I doubt whether in all those manners [in which] it is made use of, it would deserve the title of 'discretive,' which grammarians give to it. But I intend not here a full explication of this sort of Signs.

◆

CHAPTER VIII.

OF ABSTRACT AND CONCRETE TERMS.

Abstract terms not predicable one of another, and why.—The ordinary Words of Language and our common use of them would have given us light into the nature of our ideas, if they had been but considered with attention. The mind, as has been shown, has a power to *abstract* its ideas; and so they become Essences—*general* essences—whereby the *sorts* of things are distinguished. Now, each abstract idea being distinct so that of any two the one can never *be* the other, the mind will, by its intuitive Knowledge, perceive their difference; and therefore in propositions no two *whole* ideas can ever be affirmed one of another. This we see in the common use of Language, which permits not any two Abstract words—or names of Abstract ideas—to be affirmed one of another. For, how near of kin soever they may seem to be, and how certain soever it is that 'man is an animal,' or 'rational,' or 'white,' yet every one, at first hearing, perceives the falsehood of these propositions—'Humanity is animality' or 'rationality,' or 'whiteness:' and this is as evident as any of the most allowed *maxims.* All our affirmations, then, are only *in Concrete,* which is the affirming—not one Abstract idea *to be* another, but—one Abstract idea *to be joined to* another; which Abstract ideas, in Substances, may be of any sort; in all the rest, are little else but of Relations; and in Substances the most frequent are of *Powers.* V. g. 'A man is white' signifies that the thing that has the Essence of Man has also in it the Essence of whiteness, which is nothing but a *power to produce* the idea of whiteness in one whose eyes can discover ordinary objects; or, 'A man is rational' signifies that the same thing that has the Essence of a Man has also in it the Essence of Rationality, i. e. a *Power* of reasoning.

They show the difference of our ideas.—This distinction of *names* shows us also the difference of our *ideas:* for if we observe them, we shall find that our Simple ideas have all *Abstract* as well as *Concrete* Names: the one whereof is (to speak the language of grammarians) a 'substantive,' the other an 'adjective;' as 'whiteness, white—sweetness, sweet.' The like also holds in our ideas of Modes and Relations; as, 'justice, just—equality, equal;' only with this difference, that some of the Concrete names of Relations amongst men are chiefly, 'substantives;' as '*paternitas, pater;*' whereof it were easy to render a reason. But as to our ideas of Substances, we have very few or no Abstract names at all. For though the Schools have introduced *animalitas*, *humanitas*, and some others, yet [these] hold no proportion with that infinite number of names of Substances to which they never were ridiculous enough to attempt the coining of Abstract ones: and those few that the Schools forged, and put into the mouths of their scholars, could never yet get admittance into common use, or obtain the license of public approbation. Which seems to me at least to intimate the confession of all mankind, that they have no ideas of the *Real* Essences of Substances, since they have not *names* for such ideas: which no doubt they would have had, had not their consciousness to themselves of their ignorance kept them from so idle an attempt. And, therefore, though they had ideas enough to distinguish gold from stone, and metal from wood, yet, they but timorously ventured on such terms as '*aurietas*' and '*saxietas*,' or the like names, which should pretend to signify the real Essences of those Substances whereof they knew they had no ideas. And, it was only the doctrine of 'substantial forms,' and the confidence of mistaken knowledge, which first coined and then introduced '*animalitas*,' and '*humanitas*,' and the like; which yet went very little farther than their own Schools. Indeed, '*humanitas*' was a word familiar amongst the Romans, but in a far different sense; and stood not for the Abstract Essence of any Substance; but was the Abstract Name of a Mode, and its Concrete [was] '*humanus*,' not '*homo*.'

CHAPTER IX.

OF THE IMPERFECTION OF WORDS.

Any words will serve for recording.—As to the *first* of [the before-mentioned uses of Words]—for the recording our own thoughts for the help of our own memories, whereby, as it were, we talk to ourselves—*any* Words will serve. For, since sounds are voluntary and indifferent signs of any ideas, a man may use what Words he pleases to signify his own ideas to himself; and there will be no Imperfection in them if he constantly use the *same* sign for the *same* idea; for then he cannot fail of having his meaning understood, wherein consist the right use and perfection of Language.

Communication by words civil or philosophical.—*Secondly*, As to communication [by] Words, that too has a double use: I. Civil. II. Philosophical.

First, By their *Civil* use I mean—such a communication of thoughts and ideas by Words as may serve for the upholding common conversation and commerce about the ordinary affairs and conveniences of civil life, in the societies of men one amongst another.

Secondly, By the *Philosophical* use of Words I mean—such a use of them as may serve to convey the precise notions of things, and to express, in general propositions, certain and undoubted Truths which the mind may rest upon and be satisfied with, in its search after true Knowledge. These two uses are very distinct: and a great deal less exactness will serve in the one than in the other, as we shall see in what follows.

The imperfection of words is the doubtfulness of their signification.—The chief end of Language in communication being *to be understood*, Words serve not well for that end either in Civil or Philosophical discourse, when any word does not excite in the hearer the same idea which it stands for in the mind of the speaker. Now, since sounds have no natural connexion with our ideas, but have all their signification from the arbitrary imposition of men, the *doubtfulness* and uncertainty of their signification—which is *the* Imperfection we are here speaking of—has its cause more in the ideas they stand for than in any incapacity there is in one sound more than in another to signify any idea; for in that regard they are all equally *perfect*.

That, then, which makes *doubtfulness* and uncertainty in the signification of some, more than other, Words is—the difference of ideas they stand for.

Causes of their imperfection.—Words having naturally *no* signification, the idea which each stands for must be [1.] *learned*, and [2.] *retained*, by those who would exchange thoughts and hold intelligible discourse with others in any Language. But this is hard to be done,

First, Where the ideas they stand for are very complex, and made up of a great number of ideas put together:

Secondly, Where the ideas they stand for have no certain connexion in nature; and so no settled standard anywhere in nature existing to rectify and adjust them by:

Thirdly, Where the signification of the Word is referred to a standard which is not easy to be known;

Fourthly, Where the signification of the Word and the real Essence of the thing are not exactly the same.

These are difficulties that attend the signification of several Words that are intelligible. Those which are not intelligible at all—such as Names standing for any simple ideas which another has not organs or faculties to attain, as the names of colours to a blind man, or sounds to a deaf man—need not here be mentioned.

In all these cases we shall find an *Imperfection* in Words; which I shall more at large explain in their particular application to our several sorts of ideas. For if we examine them, we shall find that the Names of Mixed Modes are *most liable* to doubtfulness—[or] *Imperfection*—for the two [former] of these reasons; and the Names of Substances chiefly for the two latter.

The names of mixed modes doubtful.—*First*, The names of Mixed Modes are many of them liable to great uncertainty and obscurity in their signification:

Because the ideas they stand for are so complex.—*First*, Because of that great composition these Complex ideas often [have]. [For] when a word stands for a very Complex idea that is compounded and decompounded, it is not easy for men to form and retain that idea so exactly as to make the Name in common use stand for the same precise idea without any the least variation. Hence it comes to pass that men's names of very compound ideas, such as for the most part are *moral* words, have seldom in two different men the same precise signification; since one man's Complex idea seldom agrees with another's, and often differs from his own—from that which he had yesterday or will have to-morrow.

Because they have no standards.—*Secondly,* Because the Names of Mixed Modes, for the most part, want standards in nature, whereby men may rectify and adjust their significations; therefore they are very various and doubtful. What the word 'murder,' or 'sacrilege,' signifies can never be known from things themselves. There [are] many of the parts of those Complex ideas which are not visible in the action itself: the intention of the mind, or the relation of holy things, which makes a part of 'murder' or 'sacrilege,' has no necessary connexion with the outward and visible action of him that commits either: and the pulling [of a] trigger, [which] is all the action that perhaps is visible, has no natural connexion with those other ideas that make up the complex one named 'murder.' They have their union and combination only from the Understanding which unites them under one name: but, uniting them without any rule or pattern, it cannot be but that the signification of the name that stands for such voluntary collections should be often various in the minds of different men.

Propriety not a sufficient remedy.—It is true, common use—that is, the rule of propriety—may be supposed here to afford some aid to settle the signification of Language; and it cannot be denied but that in some measure it does. Common use regulates the meaning of Words pretty well for common conversation; but—nobody having an authority to establish the precise signification of Words, nor determine to what *ideas* any one shall annex them—common use is not sufficient to adjust them to philosophical discourses; there being scarce any name, of any very Complex idea (to say nothing of others), which in common use has not a great latitude; and which, keeping within the bounds of propriety, may not be made the sign of far different ideas. Besides, the rule and measure of propriety itself being nowhere *established*, it is often matter of dispute whether this or that way of using a word *be* propriety of speech.

From all which it is evident, that the Names of such kind of very Complex ideas are naturally liable to this Imperfection—to be of *doubtful* and uncertain signification—and, even in men that have a mind to understand one another, do not always stand for the same idea in speaker and hearer. Though the name 'glory' [or] 'gratitude' be the same in every man's mouth through a whole country, yet the Complex collective idea, which every one thinks on or intends by that name, is apparently very different in men using the same Language.

The way of learning these names contributes also to their doubtfulness.—The way also wherein the Names of Mixed Modes are ordinarily learned does not a little contribute to the doubtfulness of their signification. For if we will observe how children learn languages, we shall find that—to make them understand what the names of simple ideas or substances stand for—people ordinarily *show* them the thing whereof they would have them have the idea; and then repeat to them the name that stands for it, as 'white, sweet, milk, sugar, cat, dog.' But as for Mixed Modes—especially the most material of them, *moral* Words—the *sounds* are usually learned first; and then, to know what complex *ideas* they stand for, they are either beholden to the explication of others, or (which happens for the most part) are left to their own observation and industry; which being little laid out in the search of the true and precise meaning of names, these moral words are, in most men's mouths, little more than bare sounds; or, when they have any, it is for the most part but a very loose and undetermined, and consequently obscure and confused signification. And even those themselves who have with more attention settled their notions do yet hardly avoid the inconvenience to have them stand for complex ideas *different from those* which other even intelligent and studious men make them the signs of. Where shall one find any either controversial debate or familiar discourse concerning 'honour, faith, grace, religion, church,' &c., wherein it is not easy to observe the *different* notions men have of them; which is nothing but this—that they are *not agreed* in the signification of those Words; nor have in their minds *the same* Complex ideas which they make them stand for: and so all the contests that follow thereupon are only about the meaning of a sound. And hence we see, that in the interpretation of laws, whether divine or human, there is no end; comments beget comments, and explications make new matter for explications: and of limiting, distinguishing, varying the signification of these moral Words there is no end.

Names of substances of doubtful signification.—The Names of Substances are of a doubtful signification for a contrary reason, viz., because the ideas they stand for are *supposed conformable* to the *reality* of things, and are referred to *standards made by nature.* In our ideas of Substances we have not the liberty, as in Mixed Modes, to frame what combinations we think fit to be the characteristical notes to rank and denominate things by. In these, we must follow nature, suit our Complex ideas to real existences, and regulate the signification of their names by the things themselves, if we will have our names to be the signs of them, and [to] stand for them. Here, it is true, we *have* patterns to follow; but patterns that will make the signification of their names very uncertain: for names must be of a very unsteady and various meaning, if the ideas they stand for be referred to standards *without* us, that either cannot be known at all, or can be known but imperfectly and uncertainly.

Names of substances referred to real essences that cannot be known.—The Names of Substances have a double reference in their ordinary use. *First*, Sometimes they are made to stand for, and so their signification is supposed to agree to, the real constitution of things, from which all their properties flow, and in which they all centre. But this real constitution, or (as it is apt to be called) Essence, being utterly unknown to us, any sound that is put to stand for it must be very uncertain in its application; and it will be impossible to know what thing [is] or ought to be called, 'a horse,' or 'antimony,' when those words are put for real Essences that we have no ideas of at all. And therefore, in this supposition, the names of Substances being referred to standards that cannot be known, their significations can never be adjusted and established by those standards.

To co-existing qualities which are known but imperfectly.—*Secondly*, The simple ideas that are found to co-exist in Substances being that which their names *immediately* signify, these, as united in the several sorts of things, are the proper standards to which their names are referred; and by which their significations may best be rectified. But neither will these archetypes so well serve to this purpose as to leave these names without very various and uncertain significations. Because these simple ideas that co-exist, and are united in the same subject, being [1.] very numerous, and [2.] having all an equal right to go into the Complex specific idea which the specific name is to stand for, men, though they propose to themselves the very same subject to consider, yet frame very different ideas about it; and so the name they use for it unavoidably comes to have, in several men, very different significations. The Simple *Qualities* which make up the Complex ideas being most of them *powers*, in relation to changes which they are apt to make in, or receive from, other bodies, are almost infinite. He that shall but observe what a great variety of alterations any one of the baser metals is apt to receive from the different application only of fire, and how much a greater number of changes any one of them will receive in the hands of a chemist by the application of other bodies, will not think it strange that I count the properties of any sort of bodies not easy to be collected and completely known by the ways of inquiry which our faculties are capable of. They being, therefore, at least, so many that no man can know the precise and definite number, they are differently discovered by different men, according to their various skill, attention, and ways of handling; who therefore cannot choose but have different ideas of the same Substance, and therefore make the signification of its common name very various and uncertain.

To co-existing qualities, which are known but imperfectly.—Besides, [*thirdly*] there is scarce any particular thing existing which, in some of its simple ideas, does not communicate with a greater, and in others with a less, number of particular beings. Who shall determine in this case *which* are those that are to make up the *precise* collection that is to be signified by the specific name; or can with any just authority prescribe *which* obvious or common qualities are to be left out, or which more secret or more particular are to be put into the signification of the name of any Substance? All which together seldom or never fail to produce that various and doubtful signification in the Names of Substances, which causes such uncertainty, disputes, or mistakes, when we come to a philosophical use of them.

With this imperfection they may serve for civil, but not well for philosophical, use.—It is true as to Civil and common conversation, the general Names of Substances, regulated in their ordinary signification by some obvious qualities (as by the shape and figure in things of known seminal propagation, and in other substances for the most part by colour, joined with some other sensible qualities), do well enough to design the things men would be understood to speak of; and so they usually conceive well enough the Substances meant by the word 'gold' or 'apple,' to distinguish the one from the other. But in philosophical inquiries and debates, where *general* Truths are to be established, and consequences drawn from positions laid down, there the precise signification of the names of Substances will be found not only *not* to be well established, but also very hard to be so.

[From what has been said, it is easy to observe that] in general, the least compounded ideas in every kind have the least dubious names.

The most doubtful are the names of very compounded mixed modes and substances.—Mixed Modes, therefore, that are made up but of *few* and *obvious* Simple ideas have usually names of no very uncertain signification. But the names of Mixed Modes which comprehend a *great number* of Simple ideas are commonly of a very doubtful and undetermined meaning, as has been shown. The names of Substances, being annexed to ideas that are neither the real Essences nor exact representations of the patterns they are referred to, are liable yet to greater imperfection and uncertainty, especially when we come to a philosophical use of them.

Why this imperfection charged upon words.—The great disorder that happens in our names of Substances proceeding for the most part from our want of *knowledge*, and inability to penetrate into their real constitutions, it may probably be wondered why I charge this as an imperfection rather upon our *words* than *understandings*. I must confess, then, that when I first began this discourse of the Understanding, and a good while after, I had not the least thought that any consideration of Words was at all necessary to it. But when, having passed over the original and composition of our ideas, I began to examine the Extent and Certainty of our Knowledge, I found it had so near a connexion with Words, that unless their force and manner of signification were first well observed, there could be very little said clearly and pertinently concerning Knowledge:

which, being conversant about Truth, had constantly to do with *propositions*. And though it terminated in things, yet it was for the most part so much by the intervention of Words that they seemed scarce separable from our general Knowledge. At least, they interpose themselves so much between our Understanding and the Truth which it would contemplate and apprehend, that, like the medium through which visible objects pass, their obscurity and disorder do not seldom cast a mist before our eyes, and impose upon our Understanding.

This should teach us moderation in imposing our own sense of old authors.—Sure I am that the signification of Words, in all Languages, depending very much on the thoughts, notions, and ideas of him that uses them, must unavoidably be of great uncertainty [even] to men of the same language and country. This is so evident in the Greek authors, that he that shall peruse their writings will find in almost every one of them a distinct Language, though the same Words. But when to this natural difficulty in every country there shall be added different countries and remote ages, wherein the speakers and writers had very different notions, tempers, customs, ornaments and figures of speech, &c. every one of which influenced the signification of their Words then, though to us now they are lost and unknown, it would become us to be charitable one to another in our interpretations or misunderstanding of those ancient writings; which, though of great concernment to be understood, are liable to the unavoidable difficulties of *speech*, which (if we except the names of simple ideas, and some very obvious things) is not *capable*, without a constant *defining* [of] the terms, [to] convey the sense and intention of the speaker without any manner of doubt and uncertainty to the hearer. And in discourses of Religion, Law, and Morality, as they are matters of the highest concernment, so there will be the greatest difficulty.

The volumes of interpreters and commentators on the Old and New Testaments are manifest proofs of this. Though everything said in the text be infallibly true, yet the reader may be very fallible in the *understanding* of it. Nor is it to be wondered that the will of God, when clothed in words, should be liable to that doubt and uncertainty which *unavoidably attend that sort* of conveyance; when even His Son, whilst clothed in flesh, was subject to all the inconveniences of human nature, sin excepted. And we ought to magnify His goodness, that He has spread before all the world such legible characters of His works and providence, and given all mankind so sufficient a light of reason, that they to whom this written word never came could not (whenever they set themselves to search) either doubt of the being of a God, or of the obedience due to Him. Since, then, the precepts of Natural Religion are plain, and very intelligible to all mankind, and seldom come to be controverted, and [since] other Revealed Truths, which are conveyed to us by books and languages, are liable to the common and *natural* obscurities and difficulties incident to words, it would become us to be more careful and diligent in observing the former, and less magisterial, positive, and imperious in imposing *our own* sense and interpretations of the latter.

CHAPTER X.

OF THE ABUSE OF WORDS.

Abuse of words.—Besides the Imperfection that is naturally in Language, and the obscurity and confusion that is so hard to be avoided in the use of Words, there are several *wilful* faults and neglects which men are guilty of in this way of communication, whereby they render these *signs* less clear and distinct in their signification than naturally they need to be.

Words without any, or without clear, ideas.—*First,* In this kind the first and most palpable Abuse is—*the using of words without clear and distinct* ideas; or, which is worse, [the using of] signs without anything signified. Of these there are two sorts:—

1. One may observe in all languages certain Words that, if they be examined, will be found, in their first original and their appropriated use, not to stand for any clear and distinct ideas. These, for the most part, the several sects of philosophy and religion have introduced.

2. Others extend this abuse yet farther, who take so little care to *lay by* Words which, in their primary notation, have scarcely any clear and distinct ideas which they are annexed to, that, by an unpardonable negligence, they familiarly use words which the propriety of Language has affixed to *very important* ideas, without *any distinct meaning* at all. 'Wisdom,' 'glory,' 'grace,'&c., are *words* frequent enough in every man's mouth; but if a great many of those who use them should be asked *what*

they mean by them, they would not know what to answer.

Occasioned by learning names before the ideas they belong to.—Men, having been accustomed from their cradles to learn Words which are easily got and retained, before they knew or had framed the complex ideas to which they were annexed, or which were to be found in the things they were thought to stand for, usually continue to do so all their lives: [they] take the Words they find in use amongst their neighbours; and, that they may not *seem* ignorant [of] what they stand for, use them *confidently*, without much troubling their heads about a *certain fixed* meaning; whereby as in *such* discourses they seldom are in the right, so they are as seldom to be convinced that they are in the wrong; it being all one to go about to draw those men out of their mistakes who have no settled notions, as to dispossess a vagrant of his habitation who has no settled abode.

Unsteady application of them.—Secondly, Another great Abuse of Words is,—*inconstancy in the use of them.* It is hard to find a discourse written on any subject, especially of controversy, wherein one shall not observe, if he read with attention, the same Words (and those commonly the most material in the discourse, and *upon which the argument turns*) used sometimes for one collection of simple ideas, and sometimes for another: which is a perfect abuse of Language; [for] a man, in his accounts with another, may, with as much fairness, make the characters of *numbers* stand sometimes for one and sometimes for another collection of units (v. g. [make]

this character—3—stand sometimes for '*three*,' sometimes for '*four*,' and sometimes for '*eight*'), as, in his discourse or reasoning, make the same Words stand for different collections of simple ideas.

Affected obscurity by wrong application.—*Thirdly*, Another Abuse of Language is—*affected obscurity:* by either [1.] applying old words to new and unusual significations; or [2.] introducing new and ambiguous terms without defining either; or else [3.] putting them so together as may confound their ordinary meaning. Though the Peripatetic philosophy has been most eminent in this way, yet other sects have not been wholly clear of it. There is scarcely any of them that [is] not cumbered with some difficulties (such is the imperfection of human Knowledge), which they have been fain to cover with obscurity of terms; and to confound the signification of words, which, like a mist before people's eyes, might hinder their weak parts from being discovered.

This is unavoidably so where men's parts and learning are estimated by their skill in disputing. And if reputation and reward shall attend these conquests which depend mostly on the fineness and niceties of Words, it is no wonder if the wit of men so employed should perplex, involve, and subtilize the signification of sounds, so as never to want something to say in opposing or defending any question.

Besides, there is no such way to gain admittance [for] or give defence to strange and absurd doctrines, as to guard them round about with legions of obscure, doubtful, and undefined Words; which yet make these retreats more like the dens of robbers, or [the] holes of foxes, than the fortresses of fair warriors: which if it be hard to get them out of, it is not for the strength that is in them, but [for] the briers and thorns and *obscurity* of the thickets they are beset with. For, *untruth being unacceptable to the mind of man,* there is no other defence left for absurdity but—*obscurity.*

Taking them for things.—Fourthly, Another great Abuse of Words is—*the taking them for things.* This, though it, in some degree, concerns all Names in general, yet more particularly affects those of Substances. To this Abuse those men are most subject who confine their thoughts to any one system, and give themselves up into a firm belief of the perfection of any received hypothesis: whereby they come to be persuaded, that the terms of that sect are so suited to the nature of things that they perfectly correspond with their real existence. Who is there that has been bred up in the Peripatetic philosophy, who does not think the ten Names under which are ranked the "Ten Predicaments" to be exactly conformable to the nature of things? Who is there of that School that is not persuaded that 'substantial forms,' 'vegetative souls,' 'abhorrence of a vacuum,' 'intentional species,' &c. are something *real.* These Words men have learned from their very *entrance* upon Knowledge, and have found their masters and systems lay great stress upon them: and therefore they cannot quit the opinion that they are conformable to nature, and are the representations of something that really exists. The Platonists have their 'soul of the world,' and the Epicureans their 'endeavour towards motion' in their 'atoms when at rest.' There is scarcely any sect in philosophy

[that] has not a distinct set of terms that others understand not.

Instance in matter.—How many intricate disputes have been about Matter!—as if there were some such thing really in nature, *distinct from* Body; as it is evident the *word* Matter stands for an *idea* distinct from the *idea* of Body. For, if the idea these two terms stood for were precisely the same, they might indifferently in all places be put one for another. But we see, that though it be proper to say 'There is one matter of all bodies,' one cannot say, 'There is one body of all matters;' we familiarly say, 'One body is bigger than another:' but it sounds harsh (and I think [the phrase] is never used) to say, 'One matter is bigger than another.' Whence comes this, then? Viz. from hence, that though Matter and Body be not really distinct, but wherever there is the one there is the other, yet 'matter' and 'body' stand for two different *conceptions*, whereof the one is incomplete, and but a part of the other. For, 'body' stands for a solid, extended, figured substance whereof 'matter' is but a partial and more confused conception; it seeming to me to be used for the Substance and Solidity of 'body,' without *taking in* its Extension and Figure: and therefore it is that, speaking of matter we speak of it always as *one*, because in truth it expressly contains *nothing but* the idea of a solid Substance, which is everywhere the *same*,—everywhere uniform. This being our idea of 'matter,' we no more conceive or speak of different 'matters' in the world, than we do of different solidities; though we both conceive and speak of different 'bodies,' because extension and figure are capable of variation. But since solidity cannot exist without extension and figure, the taking 'matter' to be the name of something really existing under that precis[e term] has no doubt produced those obscure and unintelligible discourses and disputes which have filled the heads and books of philosophers concerning '*materia prima;*' which imperfection or abuse, how far it may concern a great many other general terms, I leave to be considered. This, I think, I may at least say, that we should have a great many fewer disputes in the world, if words were taken for what they are—the signs of our ideas only—and not for things themselves. For when we argue about 'matter' or any the like term, we truly argue only about the *idea* we express by that sound, whether that precise idea agree to anything really existing in nature or not. And if men would tell what ideas they make their words stand for, there could not be half that obscurity or wrangling in the search or support of Truth that there is.

This makes errors lasting.—But whatever inconvenience follows from this mistake of words, this I am sure, that by constant and familiar use they charm men into notions far remote from the truth of things. It would be a hard matter to persuade any one that the words which his father or schoolmaster used signified nothing that really existed in nature: which perhaps is none of the least causes that men are so hardly drawn to quit their mistakes, even in opinions purely philosophical, and where they have no other interest but Truth. For the words they have a long time been used to remaining firm in their minds, it is no wonder that the wrong notions annexed to them should not be removed.

Setting them for what they cannot signify.—Fifthly, Another Abuse of words is—*the setting them in the place of things which they [cannot] signify.* We may observe, that, in the general Names of Substances, whereof the Nominal Essences are only known to us when we put them into propositions, and affirm or deny anything about them, we do most commonly tacitly suppose or intend they should stand for the *real* Essence of a certain sort of Substances. For when a man says, 'Gold is malleable,' he means and would insinuate something more than this, that—'what *I call* gold is malleable,' (though truly it amounts to no more) but would have this *understood*, viz. that *gold*, i. e. what has the real Essence of *gold* is malleable; which amounts to thus much, that malleableness depends on, and is inseparable from, the real Essence of *gold*. But a man not knowing wherein that real Essence consists, the connexion in his mind of malleableness is not truly with an Essence he knows not, but only with the sound *gold* [which] he puts for it. Thus when we say that '*animal rationale*' is, and '*animal implume bipes latis unguibus*,' is not, a good Definition of a man; it is plain, we suppose the name 'man' in this case to stand for the real Essence of a *species*, and would signify, that [the former] better described that real Essence, than [the latter]. For else why might not Plato as properly make the word *ἄνθρωπος*, or 'man,' stand for his complex idea, viz.—[that] made up of the ideas of a 'body distinguished from others by a certain shape and other outward appearances'—as Aristotle made the complex idea to which he gave the name *ἄνθρωπος*, or 'man,' [to signify] 'body and the faculty of reason-

V. g. Putting them for the real essences of substances.—It is true, the Names of Substances would be much more useful, and propositions made in them much more certain, were the real Essences of Substances the ideas in our minds which those words signified. And it is for want of those real Essences that our words convey so little knowledge or certainty in our discourses about them: and therefore the mind, to remove that imperfection as much as it can, makes them, by a secret supposition, to *stand for a thing having* that real Essence, as if thereby it made some nearer approaches to it. For though the word 'man' or 'gold' signify nothing truly but a Complex idea of properties united together in one sort of Substances, yet there is scarce anybody, in the use of these words, but often supposes each of those names to stand for a thing having the real Essence on which those properties depend. Which is so far from diminishing the imperfection of our words that by a plain abuse it adds to it, when we would make them stand for something which, not being in our Complex idea, the name we use can [in] no way be the sign of.

Hence we think every change of our idea in substances not to change the species.—This shows us the reason why, in Mixed Modes, any of the ideas that make the composition of the Complex one being left out or changed, it is allowed to be another thing, i. e. to be of another *species*, as is plain in 'chance-medley,' 'manslaughter,' 'murder,' 'parricide,' &c. The reason whereof is—because the Complex idea signified by that Name is the Real as well as Nominal Essence; and there is no secret reference of that name to any other Essence. But in Substances it is not so. For though in that called 'gold' one puts into his Complex idea what another leaves out, and *vice versâ;* yet men do not usually think that therefore the *species* is changed: because they secretly in their minds refer that name, and suppose it annexed, to a real immutable Essence of a thing existing, on which those properties depend. He that *adds* to his complex idea of 'gold' that of fixedness, or solubility in *aqua regia*, which he put not in it before, is not thought to have changed the *species;* but only to have a more perfect idea by adding another simple idea, which is always, in fact, joined with those other [ideas] of which his former complex idea consisted. But this reference of the name to a thing whereof we have not the idea is so far from at all helping, that it only serves the more to involve us in difficulties. For, by this tacit reference to the real Essence of that species of bodies the word 'gold' (which, by standing for a more or less perfect collection of simple ideas, serves to design that sort of body well enough in civil discourse) comes to have no signification at all, being put for somewhat whereof we have no idea, and so can signify nothing when the body itself is away. For, however it may be thought all one, yet, if well considered, it will be found quite a different thing to argue about 'gold' in name, and about a parcel of the body itself, v. g. a piece of leaf-gold laid before us; though in discourse we are fain to substitute the *name* for the *thing.*

The cause of the abuse [*is*] *a supposition of nature's working always regularly.*—That which, I think, very much disposes men to substitute their *names* for the real Essences of *species*, is the supposition before mentioned, that nature works regularly in the production of things, and sets the boundary to each of those *species* by giving exactly the same real internal constitution to each individual, which we rank under one *general* Name. Whereas any one who observes their different qualities can hardly doubt, that many of the individuals called by the same name are, in their internal constitution, as different one from another, as several of those which are ranked under different specific names.

This abuse contains two false suppositions.—In which way of using the Names of Substances, there are these false suppositions contained:—

First, That there are certain precise Essences according to which nature makes all particular things, and by which they are distinguished into *species*. That everything has a real constitution whereby it is what it is, and on which its sensible qualities depend, is past doubt: but I think it has been proved that this makes not the distinction of *species* as we rank them, nor the boundaries of their names.

Secondly, This tacitly also insinuates as if we had ideas of these proposed Essences. For to what purpose else is it to inquire, whether this or that thing have the real Essence of the *species* man, if we did not suppose that there were such a specific Essence known? Which yet is utterly false: and therefore such application of names as would make them stand for ideas which we have not must needs cause great disorder in discourses and reasonings about them, and be a great inconvenience in our communication by words.

A supposition that words have a certain and evident signification.—*Sixthly*, There remains yet another more general, though perhaps less observed, Abuse of Words; and that is—*that men* (having by a long and familiar use annexed to them certain ideas) *imagine a near and necessary connexion between the names and the signification they use them in;* so that they forwardly suppose one cannot but understand what their meaning is, and therefore one ought to acquiesce in the words delivered; as if it were past doubt that, in the use of those common received sounds, the speaker and hearer had necessarily the same precise ideas. Whence, presuming that when they have in discourse used any term, they have thereby, as it were, set *before others* the very thing *they* talk of, and so likewise taking the words of others as naturally standing for just what they themselves have been accustomed to apply them to, they never trouble themselves to explain their own or understand clearly others' meaning. From whence commonly proceed noise and wrangling, without improvement or information; whilst men take words to be the constant, regular marks of *agreed* notions, which, in truth, are no more but the voluntary and unsteady signs of *their own* ideas. And yet men think it strange if, in discourse or (where it is often absolutely necessary) in dispute, one sometimes asks the meaning of their terms: though the arguings one may every day observe in conversation make it evident that there are few Names of Complex ideas which any two men use for the same just precise collection. It is hard to name a word which will not be a clear instance of this. 'Life' is a term, none more familiar: any one almost would take it for an affront to be asked—*what he meant* by it? And yet if it comes in question whether a plant, that lies ready formed in the seed, have life; whether the embryo in an egg before incubation, or a man in a swoon without sense or motion, be alive or not; it is easy to perceive, that a clear, distinct, settled idea does not always accompany the use of so known a word as that of 'life' is. Some gross and confused conceptions men indeed ordinarily have, to which they apply the common words of their language; and such a loose use of their words serves them well enough in their ordinary discourses or affairs. But this is not sufficient for philosophical inquiries. Knowledge and reasoning require precise, determinate ideas. And though men will not be so importunately dull as not to understand what others say without demanding an explication of their terms, nor so troublesomely critical as to correct others in the use of the words they receive from them, yet where Truth and Knowledge are concerned in the case, I know not what fault it can be to desire the explication of words whose sense seems dubious; or why a man should be ashamed to own his ignorance in what sense another man uses his words, since he has no other way of certainly knowing it but by being informed. This abuse of taking words upon trust has nowhere spread so far, nor with so ill effects, as amongst men of letters. The multiplication and obstinacy of disputes which have so laid waste the intellectual world is owing to nothing more than this ill use of Words. For, though it be generally believed that there is great diversity of opinions in the volumes and variety of controversies the world is distracted with, yet the most I can find that the contending learned men of different parties do in their arguings one with another, is, that they speak different languages.

To conclude this consideration of the Imperfection and Abuse of Language: The ends of Language, *in our discourse with others*, being *chiefly* these three—*First*, to make known one man's thoughts or ideas to another: *Secondly*, to do it with as much ease and quickness as is possible: and, *Thirdly*, thereby to convey the Knowledge of things —Language is either abused or deficient when it fails [in] any of these three [following particulars]:—

First, Words fail in the first of these ends, and lay not open one man's ideas to another's view: (1) When men have Names in their mouths without any determined ideas in their minds whereof they are the signs: or, (2) When they apply the commonly received Names of any Language to ideas, to which the common use of that language does not apply them: or, (3) When they apply them very unsteadily, making them stand now for one, and by and by for another idea.

Secondly, Men fail of conveying their thoughts with all the quickness and ease that may be, when they have Complex ideas without having *distinct names* for them. This is sometimes the fault of the Language itself, which has not in it a sound yet applied to such a signification, and sometimes the fault of the man, who has not yet learned the name for that idea he would show [to] another.

Thirdly, There is no Knowledge of things conveyed by men's words, when their ideas agree not to the *reality* *of things.* Though it be a defect that has its original in our ideas, which are not so conformable to the nature of things as attention, study, and application might make them; yet it fails not to extend itself to our words, too, when we use them as signs of real beings which yet never had any reality or existence.

How men's words fail in all these.—[How Language appears to fail in all these respects is instanced by the following illustrations proper to the three classes of our Complex Ideas:]

How in substances.—In our notions concerning Substances we are liable to [these] inconveniences: v. g. (1) He that uses the word 'tarantula,' without having any imagination or idea of what it stands for, pronounces a good word; but so long means nothing at all by it. (2) He that in a newly-discovered country shall see several sorts of animals and vegetables unknown to him before, may have as true ideas of them as of a horse or a stag; but can speak of them only by a *description*, till he shall either *take* the names the natives call them by, or *give* them names himself. (3) He that uses the word 'body' sometimes for *pure extension*, and sometimes for *extension and solidity* together, will talk very fallaciously. (4) He that gives the name 'horse' to that idea which common usage calls 'mule' talks improperly, and will not be understood. (5) He that thinks the name 'centaur' stands for some *real being* imposes on himself, and mistakes words for things.

How in modes and relations.—In Modes and Relations generally, we are liable to the [following] inconveniences, viz.: (1) I may have in my memory the *names* of Modes, as 'gratitude' or 'charity,' and yet not have any precise ideas annexed in my thoughts to those names. (2) I may have ideas, and not know the names that belong to them; v. g. I may have the idea of a man's drinking till his colour and humour be altered, till his tongue trips, and his eyes look red, and his feet fail him, and yet not know that it is to be called 'drunkenness.' (3) I may have the ideas of virtues or vices, and names also, but apply them amiss; v. g. when I apply the name 'frugality' to that idea which others call and signify by this sound, 'covetousness.'. (4) I may use any of those names with inconstancy.

Figurative speech also an abuse of language.—Seventhly, Since Wit and fancy find easier entertainment in the world than Truth and real Knowledge, *figurative speech and allusion* in Language will hardly be admitted as an imperfection or Abuse of it. I confess, in discourses where we seek rather pleasure and delight than information and improvement, such ornaments as are borrowed from them can scarcely pass for faults. But yet, if we would speak of things *as they are*, we must allow that all the art of rhetoric, [except] *order* and *clearness*, all the artificial and figurative application of Words [that] Eloquence has invented are for nothing else but to insinuate wrong ideas, move the passions, and thereby mislead the judgment; and so indeed are perfect cheats: and therefore, *however laudable or allowable oratory may render them in harangues and popular addresses*, they are certainly, in all discourses that pretend to inform or instruct, wholly to be avoided; and, where Truth and Knowledge are concerned, cannot but be thought a great fault either of the Language or person that makes use of them.

CHAPTER XI.

OF THE REMEDIES OF THE FOREGOING IMPERFECTION AND ABUSES.

Misuse of words the great cause of errors.—He that shall well consider the errors and obscurity, the mistakes and confusion, that are spread in the world by an ill use of Words, will find some reason to doubt whether Language, *as it has been employed*, has contributed more to the improvement or hinderance of Knowledge amongst mankind. How many are there that when they would think on *things* fix their thoughts only on *words*, especially when they would apply their minds to moral matters? And who then can wonder, if the result of such contemplations and reasonings about little more than sounds, whilst the ideas annexed to them are very confused, or very unsteady, or perhaps none at all—who can wonder, I say, that such thoughts and reasonings end in nothing but obscurity and mistake, without any clear judgment or knowledge?

Obstinacy.—This inconvenience in an ill use of Words men suffer in their own private meditations: but much more manifest are the disorders which follow from it, in conversation, discourse, and arguings with others. For Language being the great conduit whereby men convey their discoveries, reasonings, and Knowledge, from one to another, he that makes an ill use of it, though he does not corrupt the fountains of Knowledge, which are in things themselves, yet he does, as much as in him lies, break or stop the pipes whereby it is distributed to the public use and advantage of mankind. He that uses Words without any clear and steady meaning, what does he but lead himself and others into errors? And he that designedly does it ought to be looked on as an enemy *to* Truth and Knowledge. And yet who can wonder, that all the sciences and parts of Knowledge have been so overcharged with obscure and equivocal terms and insignificant and doubtful expressions, capable to make the most attentive or quick-sighted very little, or not at all, the more knowing; since subtlety in those who make profession to teach or defend Truth has passed so much for a virtue? A virtue, indeed, which consisting, for the most part, in nothing but the fallacious and illusory use of obscure or deceitful terms, is only fit to make men more conceited in their ignorance, and more obstinate in their errors.

And wrangling.—Let us look into the books of controversy of any kind: there we shall see, that the effect of obscure, unsteady, or equivocal terms, is nothing but noise and wrangling about sounds, without convincing or bettering a man's Understanding. For if the idea be not agreed on, betwixt the speaker and hearer, for which the words stand, the argument is not about things, but names. As often as such a word, whose signification is not ascertained betwixt them, comes in use, their understandings have no other object wherein they agree, but barely the sound; the things that they think on at that time, as expressed by that word, being quite different.

Instance, 'bat' and 'bird.'—'Whether a bat be a bird' is not a question whether a 'bat' be another thing than indeed it is, or have other qualities than indeed it has (for that would be extremely absurd to doubt of), but the question is,—1. Either between those that acknowledged themselves to have but *imperfect ideas* of one or both of those sorts of things for which these names are supposed to stand—and then it is a real *inquiry* concerning the *nature* of a 'bird' or a 'bat,' to make their yet imperfect ideas of it more complete, by examining whether all the simple ideas, to which, combined together, they both give the name 'bird,' be all to be found in a 'bat'—but this is a question only of inquirers, not [of] disputers, who neither affirm nor deny, but examine; or, 2. it is a question between *disputants*, whereof the one affirms, and the other denies, that a 'bat' is a 'bird:' and then the question is barely about the *signification* of one or both these *words;* in that they not having both the same complex ideas to which they give these two names, one holds and the other denies that these two names may be affirmed one of another. Were they agreed in the signification of these two names, it were impossible they should dispute about them. For they would presently and clearly see (were that adjusted between them) whether all the simple ideas of the more general name 'bird' were found in the complex idea of a 'bat' or not; and so there could be no doubt whether a bat were a bird or not. And here I desire it may be considered, and carefully examined, whether the greatest part of the disputes in the world are not merely verbal, and about the signification of words; and whether, if the terms they are made in were defined and reduced in their signification (as they must be where they signify anything) to determine collections of the simple ideas they do, or should, stand for, those disputes would not end of themselves, and immediately vanish. I leave it then to be considered what the learning of disputation is, and how well they are employed for the advantage of themselves, or others, whose business is only the vain ostentation of sounds, i. e. those who spend their lives in disputes and controversies. When I shall see any of those combatants strip all his terms of ambiguity and obscurity (which every one may do in the words he uses himself), I shall think him a champion for Knowledge, Truth, and Peace, and not the slave of vain-glory, ambition, or a party.

To remedy the defects of speech before mentioned to some degree, and to prevent the inconveniences that follow from them, I imagine the observation of these following rules may be of use.

To use no word without an idea.—*First*, A man should take care—*to use no word without a signification*—no Name without an idea for which he makes it stand. This rule will not seem altogether needless to any one who shall take the pains to recollect how often he has met with such Words as 'instinct,' 'sympathy,' 'antipathy,' &c. in the discourse of others, so made use of as [that] he might easily conclude that those that used them had no ideas in their minds to which they applied them; but spoke them only as *sounds*, which usually served instead of *reasons*, on the like occasions.

To have distinct ideas annexed to them in modes.—*Secondly*, It is not enough [that] a man use his Words as signs of *some* ideas: those ideas he annexes them to, if they be Simple, must be *clear* and distinct; if Complex, must be *determinate;* i. e. the precise collection of simple ideas settled in the mind, with that sound annexed to it as the sign of that precise determined collection, and no other. This is very necessary in names of Modes; and especially [in] *moral* Words; which, having no settled objects in nature from whence their ideas are taken as from their *original*, are apt to be very confused. 'Justice' is a word in every man's mouth; but most commonly with a very undetermined, loose signification: which will always be so unless a man has in his mind a distinct comprehension of the component parts that complex idea consists of; and if it be decompounded, [he] must be able to resolve it still on till he at last comes to the simple ideas that make it up: and unless this be done, a man makes an ill use of the word, let it be 'justice,' for example, or any other, I do not say, a man needs stand to recollect, and make this analysis at large every time the word 'justice' comes in his way: but this, at least, is necessary,—that he have so examined the signification of that name, and settled the idea of all its parts in his mind, that *he can* [so analyse] it when he pleases. If one, who makes his complex idea of 'justice' to be such a treatment of the person or goods of another as is *according to Law*, has not a clear and distinct idea what 'law' is (which makes a part of his complex idea of 'justice'), it is plain his idea of 'justice' itself will be confused and imperfect.

Distinct and conformable in substances.—In the Names of Substances, for a right use of them something more is required than barely *determined ideas*. In these the *names* must also be *conformable to things* as they exist: but of this I shall have occasion to speak more at large by and by. This exactness is absolutely necessary in inquiries after philosophical Knowledge, and in controversies about Truth. And though it would be well, too, if it extended itself to common conversation and the ordinary affairs of life, yet I think that is scarce to be expected. Vulgar notions suit vulgar discourses: and both, though confused enough, yet serve pretty well the market and the wake. Merchants and lovers, cooks and tailors, have words wherewithal to dispatch their ordinary affairs; and so, I think, might philosophers and disputants too, if they had a mind to understand, and to be clearly understood.

Propriety.—*Thirdly*, It is not enough that men have ideas—determined ideas—for which they may make signs stand, but they must also take care—*to apply their Words, as near as may be, to such ideas as common use has annexed them to.* For, Words, especially of Languages already framed, being no man's private possession, but the common measure of commerce and communication, it is not for any one, at pleasure, to change the stamp they are current in, nor alter the ideas they are affixed to; or at least, when there is a necessity to do so, he is bound to give notice of it. The proper signification and use of terms is best to be learned from those who in their writings and discourses appear to have had the clearest notions, and applied to them their terms with the [most] exact choice and fitness.

*To make known their meaning.—Fourthly,** It is sometimes necessary for ascertaining the signification of words, —*to declare their meaning;* where [1.] either common use has left it uncertain and loose (as it has in most Names of very Complex ideas), or [2.] where the term, being very material in the discourse, and that upon which it chiefly turns, is liable to any doubtfulness or mistake.

In simple ideas, by synonymous terms, or showing.—First, When a man makes use of the name of any simple idea, which he perceives is not understood, or is in danger to be mistaken, he is obliged, by the laws of ingenuity and the end of speech, to declare his meaning and make known what idea he makes it stand for. This, as has been shown, cannot be done by Definition: and therefore when a synonymous word fails to do it, there is but one of these ways left: (First) sometimes the *naming the subject* wherein that simple idea is to be found will make its name be understood by those who are acquainted with that subject, and [who] know it by that name. So to make a countryman understand what '*feuille-morte*' colour signifies, it may suffice to tell him—it is 'the colour of withered leaves falling in autumn.' But (Secondly) the *only sure way* of making known the signification of the name of any simple idea is—by *presenting to his senses* that subject which may produce it in his mind and make him actually have the idea that word stands for.

In mixed modes by definition.—Secondly, Mixed Modes (especially those belonging to Morality) being most of them such combinations of ideas as the mind puts together of its own choice, and whereof there are not always standing patterns to be found existing, the signification of their Names cannot be made known, as those of Simple ideas, by any *showing;* but [they] may be perfectly and exactly *defined.* For, they being combinations of several ideas that the mind of man has arbitrarily put together without reference to any archetypes, men may, if they please, exactly know the ideas that go to each composition, and so both use these words in a certain and undoubted signification, and perfectly declare, when there is occasion, what they stand for.

---

* See note at foot of page 294.—ED.

Morality capable of demonstration.—Upon this ground it is that I think that Morality is capable of demonstration as well as Mathematics; since the *precise real* Essence of the things [which] moral words stand for may be perfectly known; and so the congruity or incongruity of the things themselves be certainly discovered—in which consists perfect Knowledge. Nor let any one object that the Names of Substances are often to be made use of in Morality as well as those of Modes, [and that hence] will arise obscurity. For as to Substances, *when concerned in moral discourses* their divers natures are not so much *inquired into* as *supposed;* v. g. when we say, that 'man is subject to law,' we mean nothing by 'man' but 'a corporeal, rational creature:' the real Essence or other qualities of that creature are, in this case, in no way considered. And therefore, [although the question] 'whether a child or changeling be a man' in a *physical* sense may amongst the *naturalists* be as disputable as it will, it concerns not at all the *moral man,* as I may call him which is this immoveable, unchangeable idea—'a corporeal, rational being.' For, were there a monkey or any other creature to be found, that had the use of reason to such a degree as to be able to understand *general signs*, and to deduce consequences about *general* ideas, he would no doubt be subject to law, and *in that sense* be a man, how much soever he differed in *shape* from others of that name. The names of Substances, if they be used in them as they should, can no more disturb Moral than they do Mathematical discourses: where if the mathematician speaks of a cube or globe of gold or any other body, he has his clear settled idea, which varies not, though it may, by mistake, be applied to a particular body to which it belongs not.

Definitions can make moral discourses clear.—This I have here mentioned by the by, to show of what consequence it is for men, in their names of Mixed Modes, and consequently in all their moral discourses, to *define* their Words, when there is occasion: since thereby moral knowledge may be brought to so great clearness and certainty. And it must be great want of ingenuity (to say no worse of it) to refuse to do it: since Definition is the only way whereby the precise meaning of moral Words can be known: and yet [it is] a way whereby their meaning may be known *certainly*, and without leaving any room for any contest about it. And therefore the negligence or perverseness of mankind cannot be excused, if their discourses in Morality be not *much more clear* than those in Natural Philosophy; since they are about ideas in the mind, which are none of them false or disproportionate: they having no external *beings* for the archetypes which they are referred to, and [with which they] must correspond. It is far easier for men to frame *in their minds* an idea which shall be the standard to which they will give the name 'justice,' with which pattern so made all actions that agree shall pass under that denomination than, having *seen* Aristides, to frame an idea that shall in all things be *exactly* like him, who is as he is, let men make what idea they please of him. For the one, they need but know the combination of ideas that are put together *within* their own minds; for the other, they must inquire into the whole nature and abstruse, hidden constitution, and various qualities of a thing existing *without* them.

In substances by showing and defining.—Thirdly, For explaining the signification of the Names of Substances as they stand for the ideas we have of their distinct *species* both the before-mentioned ways, viz. of *showing* and *defining*, are requisite in many cases. For there being ordinarily in each sort some leading qualities, to which we suppose the other ideas, which make up our complex idea of that *species*, annexed, we forwardly give the *specific* Name to that thing wherein that characteristical mark is found, which we take to be the most distinguishing idea of that *species*. These leading or characteristical (as I may call them) ideas, in the *sorts* of animals and vegetables, are mostly Figure, and (in inanimate bodies) Colour, and in some both together.

Ideas of the leading qualities of substances are best got by showing.—These leading sensible qualities are those which make the chief ingredients of our *specific ideas*, and consequently the most observable and invariable part in the *definitions* of our *specific names*, as attributed to *sorts* of Substances coming under our knowledge. For though the sound 'man,' in its own nature, be as apt to signify a complex idea made up [merely] of 'animality' and 'rationality' united in the same subject as to signify any other combination, yet, used as a mark to stand for a *sort* of creatures [that] we count of our own kind, perhaps the *outward shape* is as necessary to be taken into our complex idea, signified by the word 'man,' as any other we find in it; and therefore why Plato's '*animal implume, bipes, latis unguibus*,' should not be a good Definition of the name 'man,' standing for that *sort* of creatures, will not be easy to show: for it is the shape—as the leading quality—that seems more to determine that *species*, than a faculty of reasoning, which *appears not at first*, and in some never.

Now, these leading qualities are best made known by showing, and can hardly be made known otherwise. For the shape of a 'horse' or 'cassiowary,' will be but rudely and imperfectly imprinted on the mind by words; the sight of the animals do[es] it a thousand times better: and the idea of the *particular* colour of 'gold' is not to be got by any description of it, but only by the frequent exercise of the eyes about it; as is evident in those who are used to this metal, who will frequently distinguish true from counterfeit, pure from adulterate, by the sight where others (who have as good eyes, but yet, by use, have not got the precise nice idea of that *peculiar* yellow) shall not perceive any difference. The like may be said of those other simple ideas peculiar in their kind to any Substance; for which precise ideas there are no peculiar names. The particular *ringing* sound there is in gold, distinct from the sound of other bodies, has no particular name annexed to it; no more than the particular yellow that belongs to that metal.

The ideas of their powers best known by definition.—But because many of the simple ideas that make up our specific ideas of Substances are *powers* which lie not obvious to our senses in the things as they ordinarily appear, therefore, in the signification of our *names* of Substances, some part of the signification will be better made known by *enumerating those simple ideas* than in *showing* the Substance itself. For he that, to the yellow shining colour of gold got by sight shall, from my enumerating them, have the ideas of great ductility, fusibility, fixedness, and solubility in *aqua regia*, will have a more perfect idea of gold than he can have by seeing a piece of gold, and thereby imprinting in his mind only its obvious qualities. But if the formal *constitution* of this shining, heavy, ductile thing (from whence all these its properties flow), lay open to our senses, as the formal constitution, or Essence, of a 'triangle' does, the signification of the word 'gold' might as easily be ascertained as that of 'triangle.'

Ideas also of substances must be conformable to things.—[*]But though definitions will serve to explain the Names of Substances as they stand for *our ideas*, yet they leave them not without great imperfection as they stand for *things*. For, our Names of Substances being not put barely for our ideas, but being made use of ultimately to represent things (and so are put in *their* place), their signification must agree with the truth of things, as well as with men's ideas. And therefore in Substances we are not always to rest in the ordinary complex idea commonly received as the signification of that *word*, but must go a little farther, and inquire into the nature and properties of the things themselves, and thereby perfect, as much as we can, our ideas of their distinct *species;* or else learn them from such as are used to that sort of things, and are experienced in them. For since it is intended their names should stand for such collections of simple ideas as do really exist in things themselves, as well as for the complex idea in other men's minds, which in their ordinary acceptation they stand for, therefore, to define their Names right, Natural History is to be inquired into; and their properties are, with care and examination, to be found out. This is the more necessary to be done by all those who search after knowledge and philosophical verity, in that children, being taught words whilst they have but imperfect notions of things, apply them without much thinking, and seldom frame determined ideas to be signified by them. By this means it comes to pass, that men speaking the proper language of their country,—i. e. according to grammar-rules of that language,—do yet speak very improperly of things themselves.

---

[*] There is a "Fourthly" here in all the editions, including Mr. St. John's. But this section does not correspond in sense as a fourth to any preceding one: and the section marked "*Fifthly*" in page 297 is evidently not to be referred to this one, but to that commencing with page 289.—Ed.

Not so easy to be made so.—It were therefore to be wished that men, versed in physical inquiries, and acquainted with the several *sorts* of natural bodies, would set down those simple ideas wherein they ob-

Any wor
[the before-
ing our ow
whereby, a
will serve.
different si
he pleases
there will
use the *sa*
not fail of h
sist the rig
Communi
condly, As t
a double us
First, By
tion of thou
the uphold
about the o
in the socie
Secondly,
such a use
notions of th
certain and
upon and
Knowledge.
great deal
the other, a

ideas in men's minds of several things whereof we read the names in ancient authors, than all the large and laborious comments of learned critics. Naturalists that treat of plants and animals have found the benefit of this way: and he that has had occasion to consult them will have reason to confess that he has a clearer idea of '*apium*,' or '*ibex*,' from a little *print* of that herb or beast than he could have from a long Definition of the names of either of them. And so, no doubt, he would have of '*strigil*' and '*sistrum*,' if, instead of a 'curry-comb' and 'cymbal,' which are the English names [by which] dictionaries render them, he could see stamped in the margin small pictures of those instruments, as they were in use amongst the ancients. '*Toga*,' '*tunica*,' '*pallium*,' are words easily translated by 'gown,' 'coat,' and 'cloak:' but we have *thereby* no more true ideas of the fashion of those habits amongst the Romans, than we have of the faces of the tailors who made them. But this only by the by.

By constancy in their signification.—Fifthly,* If men will not be at the pains to declare the meaning of their Words, and [if] Definitions of their terms are not to be had, yet this is the least that can be expected, that in all discourses wherein one man pretends to instruct or convince another he should—*use the same word constantly in the same sense.* If this were done, many controversies would be at an end; several of those great volumes, swollen with ambiguous words now used in one sense, and by and by in another, would shrink into a serve the individuals of each *sort* to agree. But a dictionary of this sort, containing, as it were, a natural history, requires too many hands, as well as too much time, cost, pains, and sagacity, ever to be hoped for; and till that be done, we must content ourselves with such definitions of the Names of Substances as explain the sense men use them in. And it would be well, where there is occasion, if they would afford us so much. Yet this is not usually done; but men talk to one another, and dispute in words whose *meaning* is not agreed between them, out of a mistake that the significations of common Words are certainly established, and the precise ideas they stand for perfectly known; and that it is a shame to be ignorant of them. Both which suppositions are false: no names of complex ideas having so settled, determined significations, that they are *constantly* used for the same *precise* ideas. Nor is it a shame for a man not to have a certain knowledge of any thing but by the necessary ways of attaining it; and so it is no discredit not to know what precise idea any sound stands for *in another man's mind*, without he declare it to me by some other way than [by] barely using that sound; there being no other way, without such a declaration, certainly to know it. [Therefore] methinks, it is not unreasonable to propose that Words standing for things which are known and distinguished by their outward shapes should be expressed by little *draughts* and *prints* made of them. A vocabulary made after this fashion would, perhaps, with more ease and in less time, teach the true signification of many terms, especially in languages of remote countries or ages, and settle truer ideas in men's minds of several things whereof we read the names in ancient authors, than all the large and laborious comments of learned critics. Naturalists that treat of plants and animals have found the benefit of this way: and he that has had occasion to consult them will have reason to confess that he has a clearer idea of '*apium*,' or '*ibex*,' from a little *print* of that herb or beast than he could have from a long Definition of the names of either of them. And so, no doubt, he would have of '*strigil*' and '*sistrum*,' if, instead of a 'curry-comb' and 'cymbal,' which are the English names [by which] dictionaries render them, he could see stamped in the margin small pictures of those instruments, as they were in use amongst the ancients. '*Toga*,' '*tunica*,' '*pallium*,' are words easily translated by 'gown,' 'coat,' and 'cloak:' but we have *thereby* no more true ideas of the fashion of those habits amongst the Romans, than we have of the faces of the tailors who made them. But this only by the by.

---

* See note at foot of page 294.—ED.

By constancy in their signification.—Fifthly,* If men will not be at the pains to declare the meaning of their Words, and [if] Definitions of their terms are not to be had, yet this is the least that can be expected, that in all discourses wherein one man pretends to instruct or convince another he should—*use the same word constantly in the same sense.* If this were done, many controversies would be at an end; several of those great volumes, swollen with ambiguous words now used in one sense, and by and by in another, would shrink into a very narrow compass; and many of the philosophers' (to mention no other) as well as poets' works might be contained in a nut-shell.

---

* See note at foot of page 294.—ED.

When the variation is to be explained.—But, after all, the provision of Words is so scanty in respect of that infinite variety of thoughts, that men, wanting terms to suit their precise notion, will, notwithstanding their utmost caution, be forced often to use the same Word in somewhat different senses. And though in the continuation of a discourse, or the pursuit of an argument, there be hardly room to digress into a particular Definition as often as a man varies the signification of any term, yet the import of the discourse will, for the most part, if there be no *designed fallacy*, sufficiently lead candid and intelligent readers into the true meaning of it: but where that is not sufficient to guide the reader, there it concerns the writer to explain his meaning, and show in what sense he there uses that term.

END OF THIRD BOOK.

BOOK IV.

CHAPTER I.

OF KNOWLEDGE IN GENERAL.

Our knowledge conversant about our ideas.—Since the mind, in all its thoughts and reasonings, has no other immediate object but its own Ideas, which it alone does or can contemplate, it is evident that our Knowledge is only conversant about them.

Knowledge is the perception of the agreement or disagreement of two ideas.—Knowledge, then, seems to me to be nothing but—The *perception* of the connexion and agreement, or disagreement and repugnancy, of any of our ideas. In this alone it consists. Where this perception is, *there* is Knowledge; and where it is not, there, though we may fancy, guess, or believe, yet we always come short of Knowledge. For, when we *know* that white is not black, what do we else but *perceive* that these two ideas do not agree? When we possess ourselves with the utmost security of the *demonstration* that 'the three angles of a triangle are equal to two right' ones, what do we more but *perceive*, that equality to two right ones does necessarily agree to, and is inseparable from, the three angles of a triangle?

This agreement fourfold.—But, to understand a little more distinctly wherein this agreement or disagreement consists, I think we may reduce it all to these four sorts: (1) Identity, or diversity. (2) Relation. (3) Co-existence, or necessary connexion. (4) Real existence.*

Of identity or diversity.—First, As to the first sort of agreement or disagreement, viz. Identity, or diversity—It is the first act of the mind, when it has any sentiments or ideas at all, to perceive its ideas, and, so far as it perceives them, to know each *what it is,* and thereby also to perceive their *difference,* and that one is not another. By this the mind clearly and infallibly perceives each idea to agree with itself, and to be what it is; and all distinct ideas to disagree, i. e. the one not to be the other: and this it does without pains, labour, or deduction, but at first view, by its natural power of perception and distinction. And though men of art have reduced this into those *general* rules, "What is, is;" and "It is impossible for the same thing to be and not to be," for ready application in all cases wherein there may be occasion to reflect on it, yet it is certain that *the first exercise of this faculty is about particular ideas.* A man infallibly knows as soon as ever he has them in his mind, that the ideas he calls 'white' and 'round' are the very ideas they are, and that they are not other ideas which he calls 'red' or 'square.' Nor can any maxim or proposition in the world make him know it clearer or surer than he did before, and without any such general rule. This, then, is the first agreement or disagreement which the mind perceives in its ideas, which it always perceives *at first sight:* and if there ever happen any doubt about it, it will always be found to be about the Names, and not the ideas themselves, whose identity and diversity will always be perceived as soon and as clearly as the ideas themselves are, nor can it possibly be otherwise.

---

* **This fourfold division comprises LOCKE's 'Predicables.'—ED.**

Relative.—Secondly, The next sort of agreement or disagreement the mind perceives in any of its ideas may, I think, be called Relative, and is nothing but the perception of the relation between any two ideas, of what kind soever, whether Substances, Modes, or any other. For, since all distinct ideas must eternally be known not to be the same, and so be universally and constantly denied one of another, there could be no room for any *positive* Knowledge at all, if we could not perceive any relation between our ideas, and find out the agreement or disagreement they havè one with another, in several ways [which] the mind takes of comparing them.

Of co-existence.—Thirdly, The third sort of agreement or disagreement to be found in our ideas, which the perception of the mind is employed about, is Co-existence, or non-co-existence in the same subject; and this belongs particularly to Substances. Thus when we pronounce concerning 'gold' that it is 'fixed,' our Knowledge of this truth amounts to no more but this, that 'fixedness'—or, a power to remain in the fire unconsumed—is an idea that always accompanies and is joined with that particular sort of yellowness, weight, fusibility, malleableness, and solubility in *aqua regia,* which make our complex idea signified by the word 'gold.'

Of real existence.—Fourthly, The fourth and last sort is that of actual Real Existence agreeing to any idea. Within these four sorts of agreement or disagreement is, I suppose, contained all the knowledge we have or are capable of: for, all the inquiries that we can make concerning any of our ideas, all that we know or can affirm concerning any of them, is, that it *is or is not the same* with some other; that it does or does not always *co-exist with* some other idea in the same subject; that it has this or that *relation* to some other idea; or that it has a *real existence* without the mind. Thus, 'blue is not yellow,' is of *Identity:* 'Two triangles upon equal bases between two parallels are equal,' is of *Relation:* 'Iron is susceptible of magnetical impressions,' is of *Co-existence.* 'God is,' is of *Real Existence.* Though Identity and Co-existence are truly nothing but Relations, yet they are *so peculiar ways* of agreement or disagreement of our ideas, that they deserve well to be considered as distinct heads, and not under Relation in general; since they are so different grounds of affirmation and negation, as will easily appear to any one who will but reflect on what is said in several places of this Essay. I should now proceed to examine the several Degrees of our Knowledge, but that it is necessary first to consider the different acceptations of the word 'Knowledge.'

Knowledge actual or habitual.—There are several ways wherein the mind is possessed of truth, each of which is called 'Knowledge.'

First, There is Actual Knowledge, which is—The present view the mind has of the agreement or disagreement of any of its ideas, or of the relation they have one to another.

Secondly, A man is said *to know* any proposition which having been once laid before his thoughts, he evidently perceived the agreement or disagreement of the ideas whereof it consists; and so lodged it in his Memory, that, whenever that proposition comes again to be reflected on, he, without doubt or hesitation, embraces the right side, assents to, and is certain of the truth of it. This, I think, one may call Habitual Knowledge: and thus a man may he said *to know* all those truths which are lodged in his memory by a *foregoing* clear and full perception, whereof the mind is assured past doubt as often as it has occasion to reflect on them. For, our finite Understandings being able to think clearly and distinctly but on one thing at once, if men had no *knowledge* of any more than what they actually thought on, they would all be very ignorant; and he that knew most would know *but one* truth, that being all he was able to think on at one time.

Habitual knowledge twofold.—Of Habitual Knowledge there are also, vulgarly speaking, two Degrees :—

First, The one is of such truths laid up in the Memory as, whenever they occur to the mind, it *actually perceives* the relation is between those ideas. And this is in all those truths whereof we have an Intuitive Knowledge, where the ideas themselves, by an immediate view, discover their agreement or disagreement one with another.

Secondly, The other is of such truths, whereof the mind having been convinced, it retains *the memory* of the conviction *without* the proofs. Thus a man that remembers certainly that he once perceived the demonstration that the three angles of a triangle are equal to two right ones, is *certain* that he *knows* it, because he cannot doubt of the truth of it. In his adherence to a truth where the demonstration by which it was at first known is forgotten, though a man may be thought rather to *believe his memory* than really to *know* (and this way of entertaining a truth seemed formerly to me like something between Opinion and Knowledge—a sort of assurance which exceeds bare Belief, for that relies on the testimony of another), yet, upon a due examination, I find it comes not short of perfect *certainty*, and is, in effect, true Knowledge. That which is apt to mislead our first thoughts into a mistake in this matter is—that the agreement or disagreement of the ideas in this case is not perceived, as it was at first, by an *actual view* of all the *intermediate ideas whereby* the agreement or disagreement of those in the proposition was at first perceived; but by *other* intermediate ideas, that show the agreement or disagreement of the ideas contained in the proposition whose certainty we remember. For example: in this proposition—'The three angles of a triangle are equal to two right ones,' one who has *seen* and clearly perceived the demonstration of this truth *knows* it to be true, when that demonstration is gone out of his mind, so that *at present* it is not actually in view, and possibly cannot be recollected: but he *knows* it in *a different way* from what he did before. The agreement of the two ideas joined in that proposition is perceived; but it is by the intervention of other ideas than those which at first produced that perception. He *remembers*, i. e. he *knows* (for Remembrance is but the reviving of some past Knowledge), that he *was once certain* of the truth of this proposition, that—'The three angles of a triangle are equal to two right ones.' *The Immutability of the same relations between the same immutable things*—is now the idea that shows him, that if the three angles of a triangle were *once* equal to two right ones, they will *always* be equal to two right ones. And hence he comes to be *certain*, that what was once true in the case is always true—what ideas once agreed will always agree—and, consequently, what he once *knew* to be true he will always *know* to be true, as long as he can *remember* that he once knew it. *Upon this ground it is that particular demonstrations in mathematics afford general Knowledge.* If, then, the perception that the *same ideas* will eternally have the *same* habitudes and *relations* be not a sufficient ground of Knowledge, there could be no knowledge of *general* propositions in mathematics; for no mathematical demonstration would be any other than *particular:* and when a man had demonstrated any proposition concerning one triangle or circle, his Knowledge would not reach beyond that particular diagram. If he would extend it farther, he must renew his demonstration in another instance, before he could *know* it to be true in another *like* triangle, and so on: by which means one could never come to the Knowledge of any *general* propositions. Nobody, I think, can deny that Mr. Newton certainly *knows* any proposition, that he now at any time reads in his book, to be true, though he has not in actual view that admirable chain of intermediate ideas whereby he at first *discovered* it to be true. Such a memory as that, able to retain such a train of particulars, may be well thought beyond the reach of human faculties; when the very discovery, perception, and laying together that wonderful connexion of ideas is found to surpass most *readers'* comprehension. But yet it is evident the author himself *knows* the proposition to be true, remembering he once saw the connexion of those ideas, as certainly as he *knows* such a man wounded another, *remembering* that he saw him run him through. But because the Memory is not always so clear as actual Perception, and does in all men more or less decay in length of time, this, amongst other differences, is one which shows that Demonstrative Knowledge is much more imperfect than Intuitive, as we shall see in the following chapter.

CHAPTER II.

OF THE DEGREES OF OUR KNOWLEDGE.

Intuitive.—All our Knowledge consisting, as I have said, in the view the mind has of its own ideas, which is the utmost light and greatest certainty we, with our faculties and in our way of Knowledge, are capable of, it may not be amiss to consider a little the Degrees of its *Evidence.* The *different clearness* of our Knowledge seems to me to lie in the *different way* of Perception [which] the mind has of the agreement or disagreement of any of its ideas. For if we will reflect on our own ways of thinking, we shall find that sometimes the mind perceives the agreement or disagreement of two ideas *immediately* by themselves, without the intervention of any other: and this, I think, we may call—Intuitive Knowledge. For, in this, the mind is at no pains of proving or examining, but perceives the truth, as the eye does light, only by being directed toward it. Thus the mind perceives that white is not black, that a circle is not a triangle, that three are more than two, and equal to one and two. Such kind of truths the mind perceives at the first sight of the ideas together, by bare Intuition, without the intervention of any other idea; *and this kind of Knowledge is the clearest and most certain that human frailty is capable of.* This part of Knowledge is irresistible, and, like bright sunshine, forces itself immediately to be perceived as soon as ever the mind turns its view that way; and leaves no room for hesitation, doubt, or examination, but the mind is presently filled with the clear light of it. *It is on this Intuition that depend all the certainty and evidence of our Knowledge,* which certainty every one finds to be so great, that he cannot imagine, and therefore [can]not require, a greater: for a man cannot conceive himself capable of a greater certainty, than *to know* that any idea in his mind *is such* as he perceives it to be; and that two ideas, wherein he *perceives* a difference, *are* different, and not precisely the same. He that demands a greater certainty than this demands he knows not what, and shows only that he has a mind to be a sceptic without being able to be so. Certainty depends so wholly on this *intuition*, that, in the next Degree of Knowledge, which I call—Demonstrative, this *intuition* is necessary in *all the connexions* of the intermediate ideas, without which we cannot attain Knowledge and Certainty.

Demonstrative.—The next Degree of Knowledge is—where the mind perceives the agreement or disagreement of any ideas, *but not immediately*. Though wherever the mind *perceives* the agreement or disagreement of any of its ideas, there [is] *certain* Knowledge, yet it does not always happen that the mind *sees* that agreement or disagreement which there is between them, even where it is discoverable; and in that case [the mind] remains in ignorance, and at most gets no farther than a probable conjecture. The reason why the mind cannot always perceive presently the agreement or disagreement of two ideas, is—because those ideas, concerning whose agreement or disagreement the inquiry is made, cannot by the mind be so *put together* as to show it. In this case then, when the mind cannot so bring its ideas together as, by their immediate comparison and, as it were, juxta-position or application one to another, to perceive their agreement or disagreement, it is fain, *by the intervention of other ideas* (one or more, as it happens), to discover the agreement or disagreement which it searches; and this is that which we call—Reasoning. Thus the mind, being willing to know the agreement or disagreement in [magnitude] between the three angles of a triangle and two right ones, cannot, by an *immediate* view and comparing them, do it; because the three angles of a triangle cannot be brought at once, and be compared with any one or two angles; and so of this the mind has no immediate—no *intuitive*—Knowledge. In this case the mind is fain to find out *some other* angles, to which the three angles of a triangle have an equality; and finding those [i. e. the triangle's angles] equal to two right ones, comes to know *their* equality to two right ones.

Depends on proofs.—Those intervening ideas which serve to show the agreement of any two others are called—Proofs; and where the agreement or disagreement is by this means plainly and clearly perceived, it is called—Demonstration; it being *shown* to the Understanding, and the mind made to see, that it is so. *A quickness in the mind to find out these intermediate ideas* (that shall discover the agreement or disagreement of any other), *and to apply them right*, is, I suppose, that which is called—Sagacity.

But not so easy.—This Knowledge by intervening Proofs, though it be *certain*, yet [1.] the Evidence of it is not altogether so *clear* and bright, nor the Assent so *ready*, as in Intuitive Knowledge. For though in demonstration the mind does *at last* perceive the agreement or disagreement of the ideas [which] it considers, yet it is not without pains and attention: there must be more than one transient view to find it. A steady application and pursuit are required to this discovery: and there must be a *progression* by steps and degrees before the mind can in this way arrive at *certainty*, and come to perceive the agreement or repugnancy between two ideas that need Proofs and the use of Reason to show it.

Not without precedent doubt.—Another difference between Intuitive and Demonstrative Knowledge, is—[2.] that though in the latter all doubt be removed, when by the intervention of the intermediate ideas the agreement or disagreement is perceived, yet *before* the demonstration *there was* a doubt; which in Intuitive Knowledge cannot happen to [a] mind that has its faculty of Perception left, to a degree capable of [discerning] distinct ideas: no more than it can be a doubt to the eye (that can distinctly see white and black), whether this ink and this paper be all of a colour. If there be sight in the eyes, it will, at first glimpse, without hesitation, perceive the words printed on this paper, different from the colour of the paper: and so if the mind have the faculty of *distinct* Perception, it will perceive the agreement or disagreement of those ideas that produce Intuitive Knowledge. If the eyes have lost the faculty of seeing, or the mind of perceiving, we in vain inquire after the *quickness* of sight in one, or *clearness* of perception in the other.

Not so clear.—It is true, the Perception produced by Demonstration is also very clear; yet it is often with a great abatement of that *evident* lustre and full assurance that always accompany that which I call 'Intuitive;' like a face reflected by several mirrors one to another, where as long as it retains the similitude and agreement with the object, it produces a *knowledge;* but it is still in every successive reflection with a lessening of that perfect clearness and distinctness which is in the first, till at last, after many removes, it has a great mixture of dimness, and is not *at first sight* so [evident], especially to weak eyes. Thus it is with Knowledge made out by a long train of Proofs.

Each step must have intuitive evidence.—Now, *in every step* [that] Reason makes in Demonstrative Knowledge, there is an *intuitive* Knowledge of that agreement or disagreement [that] it seeks [to establish] with the next intermediate idea, which it uses as a proof: for if it were not so, *that* yet would need a proof; since without the perception of such agreement or disagreement there is no Knowledge produced. If it be perceived *by itself*, it is Intuitive Knowledge; if it cannot be perceived by itself, there is need of some intervening idea, as a common measure, to *show* their agreement or disagreement. By which it is plain, that *every* step in Reasoning that produces Knowledge has *intuitive certainty;* which when the mind perceives, there is no more required but to *remember* it, to make the agreement or disagreement of the ideas, concerning which we inquire, visible and certain. So that to make any thing a Demonstration, it is necessary [1.] to perceive the *immediate* agreement of the *intervening* ideas, whereby the agreement or disagreement of the two ideas under examination (whereof the one is always the first, and the other the last in the account) is found. This intuitive perception of the agreement or disagreement of the intermediate ideas, in each step and progression of the demonstration, must also [2.] be *carried exactly* in the mind, and a man must be sure that no part is left out: which, because in long deductions, and the use of many proofs, the Memory does not always so readily and exactly retain, therefore it comes to pass, that this is more imperfect than Intuitive Knowledge, and men embrace often falsehood for demonstrations.

Hence the mistake, 'ex præcognitis et præconcessis.'—The necessity of this Intuitive Knowledge, *in each step* of scientifical or demonstrative Reasoning, gave occasion, I imagine, to that mistaken Axiom—that all Reasoning was *ex præcognitis et præconcessis;* which how far it is mistaken I shall have occasion to show more at large, when I come to consider Propositions, and particularly those propositions which are called—Maxims; and to show that it is by a mistake that they are supposed to be *the foundations* of all our Knowledge and Reasoning.

Demonstration not limited to quantity.—It has been generally taken for granted, that Mathematics alone are capable of *demonstrative certainty:* but to have such an agreement or disagreement as may *intuitively* be perceived being, as I imagine, not the privilege of the ideas of Number, Extension, and Figure alone, it may possibly be *the want of due method and application in* us, and not of sufficient *evidence in things*, that Demonstration has been thought to have so little to do in other parts of Knowledge, and been scarcely so much as aimed at by any but mathematicians. For, whatever ideas we have wherein the mind can *perceive* the *immediate* agreement or disagreement that is between them, *there* the mind is capable of Intuitive Knowledge; and where it can perceive the agreement or disagreement of any two ideas by an *intuitive* perception of the agreement or disagreement they have *with any intermediate* ideas, *there* the mind is capable of Demonstration, which is not limited to ideas of Extension, Figure, Number, and their Modes.

Why it has been so thought.—The reason why it has been generally sought for and supposed to be only in those, I imagine, has been not only [1.] the general usefulness of those sciences, but [2.] because, in comparing equality or excess, the Modes of Numbers have every—the least—difference very clear and perceivable: and though in Extension the least excess is not so perceptible, yet the mind has found out ways to examine and discover demonstratively the just equality of two angles, or extensions, or figures; and [3.] both these—i. e. Numbers and Figures—can be set down by *visible and lasting marks*, wherein the ideas under consideration are *perfectly determined;* which, for the most part, they are not, where they are marked only by Names and Words.

But in other simple ideas, whose modes and differences are made and counted by *degrees*, and not [by] *quantity*, we have not so nice and accurate a distinction of their differences as to perceive or find ways *to measure* their just equality or the least differences. For, those other simple ideas being *appearances* or sensations produced in us by the size, figure, number, and motion of minute corpuscles *singly insensible*, their different degrees also depend upon the variation of some or all of those causes; which since it cannot be observed by us in particles of matter whereof each is too subtle to be perceived, it is impossible for us to have any exact measures of the different *degrees* of these simple ideas.

Sensitive knowledge of particular existence.—These two, viz. Intuition and Demonstration, are the Degrees of our Knowledge; whatever comes short of one of these, with what assurance soever embraced, is but Faith or Opinion, but not *Knowledge*, at least in all *general* Truths. There is, indeed, another perception of the mind employed about the *particular existence* of finite *beings* without us; which, going beyond bare *probability*, and yet not reaching perfectly to either of the foregoing degrees of *certainty*, passes under the name of 'Knowledge.' There can be nothing more certain, than that the idea that we receive from an external object *is in* our minds; this is Intuitive Knowledge. But whether there BE any thing *more* than barely that idea-in-our-minds—whether we can *thence certainly* infer the existence of any thing without us which corresponds to that idea—is that whereof some men think there may be a question made; because men may have such *ideas* in their minds when no such *thing* exists, no such object affects their senses. But yet here, I think, we are provided with an evidence that puts us past doubting: for I ask any one, whether he be not *invincibly conscious* to himself of a *different* perception when he *looks* on the sun by day, and *thinks* on it by night—when he actually tastes wormwood, or smells a rose, or only thinks on that savour or odour? We as plainly find the difference there is between any idea revived in our minds by our own Memory, and actually coming into our minds by our Senses, as we do between any two distinct ideas. If any one say, 'A dream may do the same thing, and all these ideas may be produced in us without any external objects,' he may please to dream that I make him this answer:—(1) That it is no great matter whether I remove his scruple or not: where *all* is but dream, reasoning and arguments are of no use—Truth and Knowledge nothing. (2) That I believe he will allow a very manifest difference between *dreaming* of being in the fire, and *being* actually in it. But yet if he be resolved to appear so sceptical as to maintain, that what I call 'being actually in the fire' is nothing but a dream; and that we cannot *thereby* certainly *know* that any such thing as fire actually exists without us; I answer, that we certainly finding that pleasure or pain follows upon the application of certain objects to us, whose existence we perceive, or dream that we perceive, by our senses, this certainly is *as great as* our happiness or misery: beyond which we have no concernment to know or to be. So that, I think, we may add to the two former sorts of Knowledge this also—of the existence of particular external objects, by that Perception and Consciousness [which] we have of the actual entrance of ideas from them—and [may] allow these *three* Degrees of Knowledge, viz.—Intuitive, Demonstrative, and Sensitive: *in each of which* there are different degrees and ways of *evidence* and *certainty.*

Knowledge not always clear, where the ideas are so.—But since our Knowledge is founded on, and employed about, our Ideas only, will it not follow from thence that it is *conformable* to our ideas; and that where our ideas are clear and distinct, or obscure and confused, our Knowledge will be so too? To which I answer, No: for our Knowledge consisting in the perception of the agreement or disagreeemant of any two ideas, its clearness or obscurity consists in the clearness or obscurity *of that Perception,* and not in the clearness or obscurity of the ideas themselves; v. g. a man that has as clear ideas of the angles of a triangle, and of equality to two right ones, as any mathematician in the world, may yet have but a very obscure perception of their *agree-*

ment, and so have but a very obscure *knowledge* of it. But ideas which by reason of their obscurity, or otherwise, are confused, cannot produce any clear or distinct Knowledge; because as far as any ideas are confused, so far the mind cannot perceive clearly whether they agree or disagree. Or—to express the same thing in a way less apt to be misunderstood—he that has not *determined* the Ideas to the Words he uses cannot make Propositions of them of whose truth he can be *certain*.

◆

CHAPTER III.

OF THE EXTENT OF HUMAN KNOWLEDGE.

KNOWLEDGE, as has been said, lying in the Perception of the agreement or disagreement of any of our Ideas, it follows from hence, that,

No farther than we have ideas.—First, We can have Knowledge no farther than we have Ideas.

No farther than we can perceive their agreement or disagreement.—Secondly, That we can have no Knowledge farther than we can have Perception of that agreement or disagreement: which perception being, (1) Either by Intuition, or—The immediate comparing any two ideas, or, (2) By Reason—Examining the agreement or disagreement of two ideas by the intervention of some others, or, (3) By Sensation—Perceiving the *existence* of particular things, hence it also follows,

Intuitive knowledge extends itself not to all the relations of all our ideas.—Thirdly, That we cannot have an Intuitive Knowledge that shall extend itself to *all* our ideas, and *all* that we would *know* about them; because we cannot examine and perceive all the relations they have one to another *by juxtaposition*, or an *immediate* comparison one with another. Thus having the ideas of an obtuse- and an acute-angled triangle, both drawn from equal bases, and between parallels, I can by Intuitive Knowledge perceive the one not *to be* the other; but cannot [by] that way know whether they [are] equal; because their agreement or disagreement in equality can never be perceived by an *immediate* comparing [of] them: the difference of figure makes their parts incapable of an exact immediate application; and therefore there is need of some intervening quantities to measure them by, which is—Demonstration, or Rational Knowledge.

Nor demonstrative knowledge.—Fourthly, It follows also, from what is above observed, that our Rational Knowledge cannot reach to the *whole extent* of our ideas: because between two different ideas, [that] we would examine, we cannot always find such mediums as we can connect one to another with an Intuitive Knowledge, in all the parts of the deduction; and wherever that fails, we come short of Knowledge and Demonstration.

Sensitive knowledge narrower than either. — *Fifthly*, Sensitive Knowledge, reaching no farther than the *existence* of things actually present to our senses, is yet much narrower than either of the former.

Our knowledge therefore narrower than our ideas.—From all which it is evident, that the Extent of our

Knowledge comes not only short of the Reality of *things*, but even of the Extent of our own *ideas*. We have the ideas of a 'square,' a 'circle,' and 'equality:' and yet, perhaps, shall never be able to find a 'circle' *equal to* a 'square,' and certainly know that it is so. We have the ideas of 'matter' and 'thinking,' but possibly shall never be able to know whether any 'mere material being' 'thinks' or not; it being impossible for us, by the contemplation of *our own* ideas—without Revelation—to discover whether Omnipotenc[e] has not given to *some* systems of matter, fitly disposed, a power to perceive and 'think,' or else joined and fixed to 'matter,' so disposed, a 'thinking immaterial Substance,' it being, in respect of our notions, not much more remote from our comprehension to conceive that God can, if He pleases, *superadd to 'matter'* a faculty of 'thinking,' than that He should superadd to it *another substance* with a faculty of 'thinking,;' since we know not wherein 'thinking' *consists*, nor to what sort of Substances the Almighty has been pleased to give that power which cannot be *in any* created being but merely by the good pleasure and bounty of the Creator. But how far [our Knowledge actually] reaches, let us now inquire.

How far our knowledge reaches.—The affirmations or negations we make concerning the ideas we have, may, as I have before intimated in general, be reduced to these four sorts, viz. Identity, Co-existence, Relation, and Real Existence. I shall examine how far our Knowledge extends in each of these:—

Our knowledge of identity and diversity, as far as our ideas.—*First*, As to Identity and Diversity,—in this way of the agreement or disagreement of ideas, our Intuitive Knowledge is as far extended as our ideas themselves; and there can be no idea in the mind which it does not presently, by an Intuitive Knowledge, perceive to be what it is, and to be different from any other.

Of co-existence, a very little way.—Secondly, As to the second sort, which is the agreement or disagreement of our ideas in Co-existence—in this our Knowledge is very short; though in this consists the greatest and most material part of our Knowledge concerning Substances. For our ideas of the *species* of Substances being, as I have shown, nothing but—certain collections of simple ideas united in one subject, and so *co-existing* together,—v. g. our idea of 'flame' is [of] a body hot, luminous, and moving upwards; of 'gold' [of] a body heavy to a certain degree, yellow, malleable, and fusible—these, or some such complex ideas as these in men's minds, do these two names of the different Substances, 'flame' and 'gold,' stand for. When we would know anything farther concerning these, or any other *sort* of Substances, what do we inquire but what other *qualities* or *powers* these Substances have or have not? Which is nothing else but to know what other simple ideas do or do not *co-exist* with those that make up that complex idea.

Because the connexion between most simple ideas is unknown.—This, how weighty and considerable a part soever of human science, is yet very narrow, and scarcely any at all. The reason whereof is, that the Simple ideas whereof our Complex ideas of Substances are made up are, for the most part, such as carry with them, in their own nature, no visible necessary connexion or inconsistency with any other simple ideas, whose *co-existence* with them we would inform ourselves about.

Especially of secondary qualities.—The ideas that our Complex ones of Substances are made up of, and about which our Knowledge concerning Substances is most employed, are those of their Secondary Qualities; which depending *all* (as has been shown) upon the Primary Qualities of their minute and insensible parts, or, if not upon them, upon something yet *more remote* from our comprehension, it is impossible we should know *which* have a necessary union or inconsistency one with another: for, not knowing the root they spring from,—not knowing what size, figure, and texture of parts they are on which depend, and from which result, those qualities which make our Complex idea of 'gold,' it is impossible we should know what other qualities result from, or are incompatible with, the same constitution of the insensible parts of 'gold,' and so, consequently, must always *co-exist* with that Complex idea [which] we have of it, or else are inconsistent with it.

Because all connexion between any secondary and primary qualities is undiscoverable.—Besides this ignorance of the Primary Qualities of the insensible parts of bodies, on which depend all their Secondary Qualities, there is yet another and more incurable part of ignorance, which sets us more remote from a certain Knowledge of the *co-existence* or inco-existence (if I may so say) of different ideas in the same subject; and that is, that there is no discoverable *connexion* between any Secondary Quality and those Primary Qualities that it depends on.

Indeed, some few of the Primary Qualities have a necessary dependence and visible connexion one with another; as Figure necessarily supposes Extension, receiving or communicating Motion by impulse supposes solidity. But though these and perhaps some other of our ideas have, yet there are so few of them that have, a *visible* connexion one with another, that we can by intuition or demonstration discover the Co-existence of very few of the qualities [that] are to be found united in Substances: and we are left only to the assistance of our senses to make known to us what Qualities they contain. For this *co-existence* can be no farther *known* than it is *perceived;* and it cannot be perceived but either in particular subjects by the observation of our senses, or in general by the necessary connexion of the ideas themselves.

Of repugnancy to co-existence, larger.—As to incompatibility or repugnancy to Co-existence, we may know that any subject can have of each sort of Primary Qualities but one particular at once; v. g.—each particular extension, figure, number of parts, motion, excludes all other of each kind. The like also is certain of all *sensible* ideas peculiar to each sense: for whatever of each kind is present in any subject excludes all other of that sort; v. g. no one subject can have two smells or two colours at the same time. To this, perhaps, will be said, 'Has not an *opal*, or the infusion of *lignum nephriticum*, two colours at the same time?' To which I answer, that these bodies, to eyes differently placed, may at the same time afford different colours: but I take liberty also to say, that to eyes differently placed [they are] *different parts* of the object that reflect the particles of light: and therefore it is not the same *part* of the object, and so not the *very same subject*, which at the same time appears both yellow and azure. For it is as impossible that the very same particle of any body should at the same time differently modify or reflect the rays of light, as that it should have two different figures and textures at the same time.

Of the co-existence of powers, a very little way.—But as to the Powers of Substances to change the Sensible Qualities of other bodies—which make a great part of our inquiries about them, and [are] no inconsiderable branch of our knowledge—I doubt, as to these, whether our Knowledge reaches much farther than our Experience; or whether we can come to the discovery of most of these *powers*, and be certain that they are in any subject, by the *connexion* with any of those ideas which to us make its essence. Because the Active and Passive Powers of bodies, and their ways of operating, consisting in a texture and motion of parts which we cannot by any means come to discover, it is but in very few cases we can be able to perceive their dependence on, or repugnance to, any of those ideas which make our Complex one of that sort of things.

Of spirits, yet narrower.—If we are at a loss in respect of the powers and operations of Bodies, I think it is easy to conclude we are much more in the dark in reference to Spirits, whereof we naturally have no ideas but what we draw from that of our own, *by reflecting* on the operations of our own souls within us, as far as they can come within our observation.

Of other relations, it is not easy to say how far.—[*Thirdly**] As to the *third sort* of our Knowledge, viz., The agreement or disagreement of any of our ideas in any other relation—this, as it is the largest field of our Knowledge, so it is hard to determine how far it may extend: because the advances that are made in this part of Knowledge depending on our *sagacity* in finding intermediate ideas that may show the relations and habitudes of ideas whose co-existence is not considered, it is a hard matter to tell *when* we are at an end of such discoveries, and *when* Reason has all the helps it is capable of for the finding of proofs. They that are ignorant of algebra cannot imagine the wonders in this kind [that] are to be done by it: and what farther improvements and helps the sagacious mind of man may yet find out, it is not easy to determine. This at least I believe, that the ideas of Quantity are not those alone that are capable of Demonstration and Knowledge; and that other, and perhaps more useful, parts of contemplation would afford us *certainty*, if vices, passions, and domineering interest did not oppose or menace such endeavours.

Morality capable of demonstration.—The idea of a Supreme Being, Infinite in power, goodness, and wisdom, whose workmanship we are, and on whom we depend, and the idea of ourselves, as understanding, rational beings, being such as are clear in us, would, I suppose, if duly considered and pursued, afford such foundations of our duty and rules of action as might place Morality amongst the sciences capable of Demonstration: wherein

---

* See page 319, sixth line.—ED.

I doubt not, but from self-evident propositions, by necessary consequences, as incontestable as those in mathematics, the measures of Right and Wrong might be made out, to any one that will apply himself with the same indifferenc[e] and attention to the one as he does to the other of these sciences. The relation of *other* Modes may certainly be perceived, as well as those of Number and Extension: and I cannot see why *they* should not also be capable of Demonstration, if due methods were thought on to examine or pursue their agreement or disagreement. 'Where there is no property there is no injustice'—is a proposition as *certain* as any demonstration in Euclid: for, the idea of 'property' being [that of] *a right* to any thing, and the idea to which the Name 'injustice' is given being the invasion or violation of that right, it is evident that these ideas being thus *established*, and these Names annexed to them, I can as *certainly know* this proposition to be true as that a triangle has three angles equal to two right ones. Again, 'No government allows *absolute* liberty:' the idea of 'government' being—The establishment of society upon certain rules or laws, which require conformity [of practice] to them, and the idea of absolute liberty being for any one to do whatever he pleases, I am as capable of being certain of the truth of this proposition as of any in the mathematics.

Two things have made moral ideas thought incapable of demonstration: their complexedness, and want of sensible representation.—That which, in this respect, has given the advantage to the ideas of Quantity, and made them thought more capable of certainty and demonstration, is—

First, That they can be set down and represented by *sensible marks*, which have a greater and nearer correspondence with them than any Words or sounds whatsoever. Diagrams drawn on paper are copies of the ideas in the mind, and not liable to the uncertainty that Words carry in their signification. An angle, circle, or square, drawn in lines, lies open to the view, and cannot be mistaken: it remains unchange[d] and may at leisure be considered and examined, and the demonstration be revised, and all the parts of it may be gone over more than once, without any danger of the least change in the ideas. This cannot be thus done in Moral ideas—we have no sensible marks that resemble them, whereby we can set them down—we have nothing but words to express them by; which though when written they remain the same, yet the ideas they stand for may change in the same man; and it is *very seldom that they are not different* in different persons.

Secondly, Another thing that makes the greater difficulty in Ethics is—that Moral ideas are commonly *more complex* than those of the Figures ordinarily considered in mathematics. From whence these two inconveniences follow: (1) That their Names are of *more uncertain signification*, the precise collection of simple ideas they stand for not being so easily agreed on; and so the sign that is used for them in communication always, and in thinking often, does not steadily carry with it the same idea. Upon which the same disorder, confusion, and error follow as would if a man, going to demonstrate something of a heptagon, should, in the diagram, leave

leave out one of the angles; or by oversight make the figure with one angle more than the name ordinarily imported, or [than] he intended it should when at first he thought of his demonstration. This often happens, and is hardly avoidable in very complex moral ideas, where, the same name being retained, one angle—i. e. one simple idea—is left out or put in, in the complex one (still called by the same Name), more at one time than another. (2) From the complexedness of these Moral ideas there follows another inconvenience, viz. that the mind cannot easily *retain* those precise combinations so exactly and perfectly as is necessary in the examination of the habitudes and correspondences, agreements or disagreements, of several of them one with another; especially where it is to be judged of by long deductions, and the intervention of several other complex ideas, to show the agreement or disagreement of two remote ones.

The great help against this which mathematicians find in diagrams and figures, which remain *unalter*[*ed*] in their draughts, is very apparent. [In computation, too, while] the ciphers or marks help not the mind at all *to perceive the agreement* of any two or more numbers—their equalities, or proportions—(*that* the mind has only by intuition of its own ideas of the numbers themselves), the numerical characters are helps to the memory, to record and retain the several ideas about which the demonstration is made, whereby a man may know how far his Intuitive Knowledge in surveying several of the particulars has proceeded; that so he may, without confusion, go on to what is yet unknown, and, at last, have in one view before him the result of all his perceptions and reasonings.

Remedies of those difficulties.—One part of these disadvantages in Moral Ideas, which has made them be thought not capable of Demonstration, may in a good measure be remedied by Definitions, [1.] setting down that collection of simple ideas which every term shall stand for, and then [2.] using the terms steadily and constantly for that precise collection. *And what methods Algebra, or something of that kind, may hereafter suggest, to remove the other difficulties, is not easy to foretell.* Confident I am, that if men would in the same *method*, and with the same *indifferency*, search after Moral as they do Mathematical Truths, they would find them [1.] to have a stronger connexion one with another, and [2.] a more necessary consequence from our clear and distinct ideas, and [therefore] to come nearer perfect Demonstration, than is commonly imagined.

Of real existence.—As to the *Fourth* sort of our Knowledge, viz. of the Real—actual—existence of things, we have an Intuitive Knowledge of our own existence; a Demonstrative Knowledge of the existence of God; of the existence of any thing else we have no other but a Sensitive Knowledge, which extends not beyond the objects *present* to our senses.

Our ignorance great.—Our Knowledge being so narrow, as I have shown, it will, perhaps, give us some light into the present state of our minds, if we consider the causes of our *ignorance*, which, from what has been said, I suppose, will be found to be chiefly these three—

First, Want of ideas: *Secondly*, Want of a discoverable connexion between the ideas [that] we have: *Thirdly*, Want of tracing and examining our ideas.

One cause of it, want of ideas, either such as we have no conception of,—First, There are some things, and those not a few, that we are ignorant of for want of ideas:

(1) All the simple ideas [that] we have are confined (as I have shown) to those we receive from corporeal objects by Sensation, and from the operations of our own mind as the objects of reflection. But how much these few and narrow inlets are disproportionate to the vast whole extent of all Beings, will not be hard to persuade those [to believe] who are not so foolish as to think *their* span the measure of all things. He that will consider the Infinite Power, Wisdom, and Goodness of the Creator of all things, will find reason to think it was not *all* laid out upon so inconsiderable, mean, and impotent a creature as he will find Man to be, who, *in all probability*, is one of the *lowest* of all Intellectual Beings. This, I think, I may confidently say, that the Intellectual and Sensible world are in this perfectly alike,—that that part which we see of either of them holds no proportion with what we see not; and whatsoever we can reach, with our eyes, or our thoughts, of either of them, is but a point—almost nothing—in comparison of the rest.

Or want of such ideas as particularly we have not, because of their remoteness, or minuteness.—(2) Another great cause of Ignorance is—The want of ideas [that] we are *capable* of [having]. [For] not knowing what is the particular bulk, figure, and motion of the greatest part of the bodies of the universe, we are ignorant of the several powers, efficacies, and ways of operation, whereby the effects which we daily see are produced. These are hid from us [1.] in some things by being too *remote;* and, [2.] in others, by being too *minute.*

Hence no science of bodies.—And therefore I am apt to doubt, that how far soever human industry may advance useful and experimental philosophy in physical things, *scientific* [knowledge] will still be out of our reach; because we want perfect and adequate ideas of those very bodies which are nearest to us, and most under our command. Those which we have ranked into classes under Names, and [which] we think ourselves best acquainted with, we have but very imperfect and incomplete ideas of. *Distinct* ideas of the several sorts of bodies that fall under the examination of our senses perhaps we may have; but *adequate* ideas, I suspect, we have not of *any one* amongst them. And though the former of these will serve us for common use and discourse, yet whilst we want the latter, we are not capable of scientific Knowledge, nor shall ever be able to discover *general, instructive, unquestionable* Truths concerning them.

Much less of spirits.—This, at first sight, will show us how disproportionate our Knowledge is to the whole extent even of material Beings; to which if we add the consideration of that infinite number of Spirits that *may be,* and probably *are,* which are yet more remote from our Knowledge (whereof we have no cognisance, nor can [we] frame to ourselves any distinct ideas of their several ranks and sorts), we shall find this cause of ignorance conceal from us, in an impenetrable obscurity, *almost the whole* Intellectual world—a *greater*, certainly, and *more beautiful*, world than the Material.

Want of a discoverable connexion between ideas we have.—*Secondly*, In the next place, another cause of ignorance of no less moment* is—A want of a discoverable connexion between those ideas which we have. For wherever we want that, we are utterly incapable of *universal* and *certain* Knowledge; and are, as in the former case, left only to observation and experiment.

Instances.—In some of our ideas there are certain relations, habitudes, and connexions so visibly included in the nature of the ideas themselves, that we cannot conceive them separable from them by any power whatsoever. *And in these only we are capable of certain and universal Knowledge.* Thus the idea of a right-lined triangle *necessarily* carries with it an equality of its angles to two right ones. Nor can we conceive this relation—this connexion of these two ideas—to be possibly mutable, or to depend on any arbitrary power which *of choice* made it thus, or could make it otherwise. But the coherence and continuity of the parts of Matter—the production of Sensation in us of colours and sounds, &c. by impulse and motion—nay, the original rules and communication of motion, being such wherein we can discover no *natural connexion* with any ideas [that] we have, we cannot but ascribe them to the arbitrary will and good pleasure of the wise Architect.

Want of tracing our ideas.—*Thirdly*, Where we *have* adequate ideas, and where there *is* a certain a verable connexion between them, yet we are often ignorant for want of tracing those ideas which we have, or may have; and for want of finding out those *intermediate* ideas which may show us what habitude of agreement or disagreement they have one with another. That which has most contributed to hinder the due tracing of our ideas, and finding out their relations and agreements or disagreements one with another, has been, I suppose, the *ill use* of Words. [Hence a cause why *proofs* are less available in other sciences than in Mathematics: for] mathematicians, abstracting their thoughts from Names, and accustoming themselves to set before their minds the *ideas themselves* that they would consider, and not *sounds* instead of them, have avoided thereby a great part of that perplexity and confusion, which ha[ve] so much hindered men's progress in other parts of Knowledge.

---

* In some editions the text reads 'amount.'—ED.

Extent in respect of universality.—Hitherto we have examined the Extent of our Knowledge in respect of the *several sorts* of beings that are. There is [*Fourthly*] another Extent of it in respect of *universality*, which will also deserve to be considered; and in this regard our Knowledge follows the nature of our Ideas. If the ideas are *abstract*, whose agreement or disagreement we perceive, our Knowledge is *universal*. For what is known of such general ideas will be true of every particular thing in which that Essence—i. e. that abstract idea—is to be found: and what is once known of such ideas will be perpetually and for ever true. So that, as to all general Knowledge, we must search and find it only *in our* *own minds*, and it is only the examining of our own ideas that furnishes us with that. Truths belonging to Essences of things (that is, to Abstract Ideas) are *eternal*, and are to be found out by the contemplation only of those Essences; as the existence of things is to be known only from Experience.

◆

CHAPTER IV.

OF THE REALITY OF HUMAN KNOWLEDGE.

Objection. Knowledge placed in ideas may be all bare vision.—I doubt not but my reader by this time may be ready to say, "If it be true, that all Knowledge lies only in the perception of the agreement or disagreement of our own ideas, the visions of an enthusiast, and the reasonings of a sober man, will be equally *certain*. If there be any difference between them, the advantage will be on the warm-headed man's side, as having the more ideas, and the more lively: [whereas] it is this alone [that] gives a value to our reasonings, and [a] preference to one man's knowledge over another's,—that it is of things *as they really are*, and not of dreams and fancies."

Answer. Not so where ideas agree with things.—To which I answer—That if our Knowledge of our ideas *terminate* in them, and reach no farther where there is *something farther intended*, our most serious thoughts will be of little more use than the reveries of a crazy brain; and the truths built thereon of no more weight than the discourse of a man who sees things clearly in a dream, and with great assurance utters them. But I hope to make it evident, that this way of certainty—by the Knowledge of our own ideas—goes a little farther than bare imagination; and I believe it will appear, that *all the certainty of General Truths* [which] a man has lies in nothing else.

It is *evident* the mind knows not things *immediately*, but only by the *intervention* of the ideas [which] it has of them. Our Knowledge therefore is *real* only *so far as there is a conformity between our ideas and the reality of things.* There [are] two sorts of ideas that we may be *assured* agree with things.

As all simple ideas do.—First are Simple ideas: which ideas are not fictions of our fancies, but the natural and regular productions of things [existing] without us, *really* operating upon us; and so carry with them all the conformity which is intended, or which our state requires.

All complex ideas, except of substances.—Secondly, all Complex ideas, except those of Substances, being archetypes of the mind's own making, not intended to be the *copies* of anything, nor referred to the *existence* of anything, as to their originals, cannot *want* any conformity necessary to *real* Knowledge. For that which is not designed to represent anything but itself can never be capable of a wrong representation, nor mislead us from the true apprehension of anything by its unlikeness to it; and such, excepting those of Substances, are all our Complex ideas.

Hence the reality of mathematical knowledge.—I doubt not but it will be easily granted that the Knowledge we have of mathematical truths is not only *certain*, but *real*, Knowledge; and not the bare empty vision of vain, insignificant chimeras of the brain; and yet, if we will consider, we shall find that *it* is only of *our own ideas*. The mathematician considers the truth and properties belonging to a rectangle or circle, only as they are *in idea* in his own mind. For it is possible he never found either of the[se figures] existing mathematically —i. e. precisely true [to his conception of it]—in his life. But yet the knowledge he has of any truths or properties belonging to a circle, or any other mathematical figure, is nevertheless *true* and *certain* even of *real things* existing: because real things are no farther concerned, nor intended to be meant by any such propositions, than as things *really agree* to those archetypes in his mind. Is it true of the *idea* of a triangle, that its three angles are equal to two right ones? It is true also of a *triangle* wherever it really exists. Whatever other figure exists that is not exactly answerable to *the idea* of a triangle in his mind is not at all concerned in that proposition. And therefore he is *certain* [that] all his Knowledge concerning such ideas is *real* Knowledge.

And of Moral.—In the same manner, the truth and certainty of moral discourses abstract from* the *lives* of men and the *existence* of those virtues in the world whereof they treat: nor are Tully's Offices less true because there is nobody in the world that exactly practises his rules, and lives up to that pattern of a virtuous man which he has given us, and which existed nowhere when he wrote but in idea. If it be true in speculation, —i. e. in idea,—that murder deserves death, it will also be true *in reality* of any *action* that exists conformable to that *idea* of murder. As for other actions, the truth of that proposition concerns them not. And thus it is of all other *species* of things which have no other Essences but those ideas which are in the minds of men. And hence it follows that Moral Knowledge is as capable of *real certainty* as Mathematics. For, Certainty being but the perception of the agreement or disagreement of our ideas, and Demonstration nothing but the perception of such agreement by the *intervention* of other ideas or mediums—our *moral* ideas as well as *mathematical* being archetypes themselves, and so *adequate* and complete ideas,—all the agreement or disagreement which we shall find in *them* will produce Real Knowledge, as well as in mathematical figures.

---

* That is, 'form *general* propositions independently of.'—ED.

For the attaining of Knowledge and *certainty*, it is requisite—that we have *determined* ideas; and to make our knowledge *real*, it is requisite—that the ideas *answer their archetypes.*

Nor will it be less true or certain because moral ideas are of our own making and naming.—But it will here be said, that "if Moral Knowledge be placed in the contemplation of our own Moral Ideas, and those, as other Modes, be of our own making, what strange notions will there be of 'justice' and 'temperance!' What confusion of virtues and vices, if every one may make what ideas of them he pleases!" [Answer]—No confusion or disorder in *the things themselves*, nor [in] the *reasonings* about them; no more than (in mathematics) there would be a disturbance in the demonstration, or a change in the properties of figures and their relations one to another, if a man should make a 'triangle' with four corners, or a 'trapezium' with four right angles: that is, *change the names* of the figures, and call that by one name which mathematicians called ordinarily by another. The change of the name by the impropriety of speech will at first disturb him who knows not what idea it stands for: but as soon as *the figure* is *drawn*, the consequences and demonstration are plain and clear. Just the same is it in moral knowledge; let a man have the idea of taking from others, without their consent, what their honest industry has possessed them of, and call this 'justice,' if he please. He that takes the *name* here without the idea put to it will be mistaken, by joining another idea of his own to *that* name: but strip the idea of that name, or take it such as it is in the speaker's mind, and the same *things* will agree to it as if you called it 'injustice.' Indeed, wrong names in moral discourses breed usually more disorder, because they are not so easily *rectified* as in mathematics, where the figure once drawn and *seen* makes the name useless and of no force.

Misnaming disturbs not the certainty of the knowledge.—One thing more we are to take notice of—that where GOD, or any lawmaker, has *defined* any Moral Names, there they *have made* the Essence of that *species* to which that Name belongs; and *there* it is not safe to apply or use them otherwise: but in other cases it is bare impropriety of speech to apply them contrary to the common usage of the country. But yet even this too disturbs not the *certainty* of that Knowledge, which is still to be had by a due contemplation and comparing of those even nicknamed ideas.

Ideas of substances have their archetypes without us.—*Thirdly*, There is another sort of Complex ideas, which being referred to archetypes [existing] without us may differ from them, and so our Knowledge about *them* may come short of being real. Such are our ideas of Substances; which, consisting of a *collection* of Simple ideas, supposed taken from the works of nature, may yet vary from them, by having more, or different, ideas united in them than are to be found united in the things themselves: from whence it comes to pass, that they may, and often do, fail of being exactly conformable to things themselves.

So far as they agree with those, so far our knowledge concerning them is real.—Our ideas of Substances, being supposed *copies*, and referred to archetypes [existing] without us, must still be *taken from* something that does [exist] or has existed: they must not consist of ideas put together at the pleasure of our thoughts without any real pattern, [even] though we can perceive no inconsistence in such a combination. The reason whereof is, because we not knowing what real constitution it is of Substances whereon our simple ideas depend,—and which really is the cause of the strict union of some of them one with another, and [of] the exclusion of others,—there are very few of them that we can be *sure* are, or are not, inconsistent in nature, any farther than *experience* and sensible *observation* reach. Herein therefore is founded the *reality* of our Knowledge concerning Substances—*That all our Complex ideas of them must be such, and such only, as are made up of such Simple ones as have been discovered to co-exist in nature.* And our ideas, being thus *true*, though not perhaps very *exact* copies, are yet the subjects of *real* (as far as we have any) Knowledge of them: which, as has been already shown, will not be found to reach very far; but so far as it does, it will still be real Knowledge.

In our inquiries about substances we must consider ideas, and not confine our thoughts to names or species supposed set out by names.—This if we rightly consider, and confine not our thoughts and Abstract ideas to Names, as if there *were*, or *could* be, *no* other *sorts* of things than what known Names had already determined and, as it were, set out, we should think of *things* with greater freedom and less confusion than perhaps we do. It would possibly be thought a bold paradox, if not a very dangerous falsehood, if I should say that some changelings, who have lived forty years together without any appearance of reason, are something between a man and a beast: which prejudice is founded upon nothing else but a false supposition, that these two Names, 'man' and 'beast,' stand for distinct *species* so set out, by real Essences, that there can come no other *species* between them; whereas if we will abstract from those names, and the supposition of such *specific* Essences made by nature, wherein all things of the same denominations did exactly and equally partake [that is, if we will exercise our thinking faculty *abstractedly from* (or, in other words, *independently of*) 'names' and 'the supposition of,' &c.]—if we would not fancy that there were *a certain number* of these Essences wherein all things, as in moulds, were cast and formed—we should find that the idea of the shape, motion, and life of a 'man without reason' is as much a *distinct* idea, and makes as much a *distinct sort* of things, from 'man' and 'beast,' as the idea of the shape of an 'ass with reason' would be different from either that of 'man' or 'beast,' and be a *species* of animal between, or distinct from, both.

Objection, against a changeling being something between a man and a beast, answered.—Here everybody will be ready to ask, "If changelings may be supposed something between man and beast, pray what are they?" I answer—[They are] 'changelings:' which is as good a Word to signify something different from the signification of 'man' or 'beast,' as the Names 'man' and 'beast' are to have significations different one from the other. This, well considered, would resolve this matter. [But] without doubt it will be asked, "If changelings are something between man and beast, what will become of them in the other world?" To which I answer, *First*—It concerns *me* not to know or inquire: to their own Master they stand or fall. It will make their state neither better nor worse, whether *we* determine any thing of it or not. They are in the hands of a faithful Creator and a bountiful Father, who disposes not of His creatures according to *our* narrow thoughts or opinions, nor distinguishes them according to Names and *species* of *our* contrivance. And we that know so little of this present world [that] we are in, may, I think, content ourselves without being peremptory in *defining* the different states which creatures shall come into when they go off this stage. It may suffice us, that He hath made known to all those who are capable of instruction, discourse, and reasoning, that *they* shall come to an account, and receive according to what *they* have done in this body.

But, *Secondly*, I answer—The force of these men's question (viz. "Will you deprive changelings of a future state?") is founded on one of two suppositions which are both false. The *first* is—That all things that have the outward shape and *appearance* of a man must necessarily be designed to an immortal future being after this life. Or, *secondly*, That whatever is of human birth must be so [designed]. Take away these *imaginations*, and such questions will be groundless and ridiculous. I desire, then, those who think there is no more but an accidental difference between themselves and changelings—the Essence in both being exactly the same—to consider whether they can imagine immortality annexed to any outward *shape* of the body; the very proposing it is, I suppose, enough to make them disown it. It will perhaps be said, that the shape is the *sign* of a rational soul *within*, which is immortal. I wonder who made it the sign of any such thing: for barely saying it will not make it so. It would require some proofs to persuade one of it. No *figure* that I know speaks any such language. For it may as rationally be concluded, that the dead body of a man, wherein there is to be found no more appearance or action of life than there is in a statue, has yet nevertheless a living soul in it, because of its *shape*, as that there is a rational soul in a changeling, because he has the outside of a rational creature, when his actions carry far less marks of reason with them in the whole course of his life than what are to be found in many a beast.

[On the whole], it is necessary to quit the common notion of *species* and Essences, if we will *truly look into* the nature of things, and examine them by what our faculties can discover in them as they exist, and not by groundless fancies that have been taken up about them.

Recapitulation.—Wherever [1.] we *perceive* the agreement or disagreement of any of our ideas, there is *certain* Knowledge: and wherever [2.] we are *sure* those ideas *agree* with the *reality* of things, there is *certain, real,* Knowledge. Of which agreement of our ideas with the reality of things having here given the marks, I think I have shown wherein it is that *certainty*—real certainty—consists. Which, whatever it was to others, was, I confess, to me heretofore one of those *desiderata* which I found great want of.

◆

CHAPTER V.

OF TRUTH IN GENERAL.

What truth is.—"What is truth?" was an inquiry many ages since; and it being that which all mankind either do, or pretend to, search after, it cannot but be worth our while carefully to examine wherein it consists, and so acquaint ourselves with the nature of it, as to observe *how* the mind distinguishes it from falsehood.

A right joining or separating of signs; i. e. *ideas or words.*—Truth, then, seems to me, in the proper import of the word, to signify nothing but—The joining or separating of *signs*, as the things signified by them do agree or disagree one with another. The joining or separating of 'signs' here meant is what by another name we call 'Proposition.' So that Truth properly belongs only to Propositions: whereof there are two sorts, viz., Mental and Verbal; as there are two sorts of 'signs' commonly made use of, viz., Ideas and Words.

Which make mental or verbal propositions.—To form a clear notion of Truth, it is very necessary to consider truth of *thought* and truth of *words*, distinctly one from another: but yet it is very difficult to treat of them asunder; because it is unavoidable, in treating of *mental* propositions, to make use of *words;* and then the instances given of mental propositions cease immediately to be barely mental, and become verbal. For, a mental proposition being nothing but a bare consideration of the ideas as they are in our minds, stripped of names, they lose the nature of purely mental propositions as soon as they are put into words.

Mental propositions are very hard to be treated of.—And that which makes it yet harder to treat of mental and verbal propositions separately is—that most men, if not all, in their thinking and reasonings within themselves, make use of words instead of ideas, at least when the subject of their meditation contains in it Complex ideas. Which is a great evidence of the imperfection and uncertainty of our ideas of that kind, and may, if attentively made use of, serve for a mark to show us what are those things of [which] we have clear and perfect, established ideas, and [of] what [we have] not. For, if we will curiously observe the way our mind takes in thinking and reasoning, we shall find, I suppose, that when we make any propositions within our own thoughts about 'white' or 'black,' 'sweet' or 'bitter,' a 'triangle' or a 'circle,' we can, and often do, frame in our minds the *ideas* themselves without reflecting on the *names*. But when we would consider or make propositions about the more complex ideas, as of 'a man,' 'vitriol,' 'fortitude,' 'glory,' we usually put the *name* for the *idea:* because, the ideas [which] these names stand for being for the most part imperfect, confused, and undetermined, we reflect on the names themselves, because they are more clear, certain, and distinct, and [more readily] occur to our thoughts, than the pure ideas: and so we make use of these *words* instead of the *ideas* themselves, even when we would meditate and reason within ourselves, and make tacit mental propositions. In Substances, as has been already noted, this is occasioned by the imperfection of our ideas; we making the Name stand for the Real Essence, of which we have no idea at all. In Modes, it is occasioned by the great number of Simple ideas that go to the making them up. For, many of them being compounded, the name occurs much easier than the complex idea itself, which requires time and attention to be recollected, and exactly represented to the mind.

Being nothing but the joining or separating ideas without words.—But to return to the consideration of Truth:

we must, I say, observe two sorts of Propositions that we are capable of making:

First, Mental, wherein the Ideas in our Understandings are, without the use of Words, put together or separated by the mind, perceiving or judging of their agreement or disagreement.

Secondly, Verbal Propositions, which are Words—the signs of our ideas—put together or separated in affirmative or negative sentences. By which way of affirming or denying, these signs, made by sounds, are as it were put together or separated one from another. So that Proposition consists in—joining or separating *signs*: and Truth consists in—the putting together or separating these *signs*, according as the things which they stand for agree or disagree.

When mental propositions contain real truth, and when verbal.—When ideas are so put together or separated in the mind, as they or the things they stand for do agree or not, that is, as I may call it, Mental Truth. But Truth of Words is something more, and that is—The affirming or denying of Words one of another, as the ideas they stand for agree or disagree: and this again is twofold—either purely Verbal and trifling, which I shall speak of (Chap. VIII.), or Real and instructive, which is the object of that *real* Knowledge which we have spoken of already.

Objection against verbal truth, that thus it may all be chimerical.—But here again will be apt to occur the same doubt about Truth, that did about Knowledge: and it will be objected, that 'if truth be nothing but the joining or separating of words in propositions, as the ideas [which] they stand for agree or disagree in men's minds, the Knowledge of Truth is not so valuable a thing as it is taken to be, nor worth the pains and time men employ in the search of it; since, by this account, it [may] amount to no more than the conformity of words to the chimeras of men's brains.'

Answered. Real truth is about ideas agreeing to things. —Though our Words signify nothing but our *ideas*, yet being designed by them to signify *things*, the Truth they contain, when put into propositions, will be only *verbal* when they stand for *ideas* in the mind that have not an agreement with the reality of things. And therefore Truth, as well as Knowledge, may well come under the distinction of 'verbal' and 'real;' that being only *verbal* Truth wherein terms are joined according to the agreement or disagreement of the ideas [which] they stand for, without regarding whether our ideas are such as really have, or are capable of having, an existence in nature. But *then* it is they contain *real* Truth when these signs are joined as our ideas agree; and when our ideas are such as we know are capable of having an existence in nature: which in Substances we cannot know but by knowing that such *have existed.*

Falsehood is the joining of names otherwise than their ideas agree.—Truth is—The marking down in Words the agreement or disagreement of ideas as it is. Falsehood is—The marking down in Words the agreement or disagreement of ideas otherwise than it is. And so far as these ideas thus marked by sounds agree to their archetypes, so far only is the Truth *real.* The Knowledge of this Truth consists in knowing what *ideas* the

Words stand for, and the perception of the agreement or disagreement of those ideas according as it is marked by those Words.

General propositions to be treated of more at large.—But because Words are looked on as the great conduits of Truth and Knowledge, and that, in conveying and receiving of Truth, and commonly in reasoning about it, we make use of Words and Propositions, I shall more at large inquire wherein the certainty of *real* Truths contained in Propositions consists, and where it is to be had, and endeavour to show in what sort of *universal* Propositions we are capable of being certain of their *real* Truth or falsehood.

I shall begin with *general* Propositions, as those which most employ our thoughts and exercise our contemplation. General Truths are most looked after by the mind, as those that most enlarge our Knowledge: and, by their comprehensiveness, satisfying us at once of many particulars, [which] enlarge our view, and shorten our way to Knowledge.

Moral and metaphysical truth.—Besides Truth taken in the strict sense before mentioned, there are other sorts of Truth; as, (1) Moral Truth, which is—Speaking things according to the *persuasion of our own minds*, though the proposition we speak agree not to the reality of things: (2) Metaphysical Truth, which is nothing but—The real existence of things conformable to the ideas to which we have annexed their Names. This, though it seems to consist in the very 'beings' of things, yet, when considered a little nearly will appear to include a tacit proposition, whereby the mind joins that particular thing to the idea [that] it had before settled with a Name to it. But these considerations of Truth, either having been before taken notice of, or not being much to our present purpose, it may suffice here only to have mentioned them.

CHAPTER VI.*

OF UNIVERSAL PROPOSITIONS, THEIR TRUTH AND CERTAINTY.

General truths hardly to be understood but in verbal propositions.—All the Knowledge we have being only of particular or general Truths, it is evident that whatever may be done in the former of these, the latter, which is that which with reason is most sought after, can never be well made known, and is very seldom apprehended, but as conceived and expressed in Words. It is not therefore out of our way, in the examination of our Knowledge, to inquire into the truth and certainty of universal propositions.

Certainty twofold, of truth and of knowledge.—But that we may not be misled in this case by that which is the danger everywhere, I mean by the *doubtfulness* of terms, it is fit to observe that *certainty* is twofold; certainty of Truth, and certainty of Knowledge. Certainty of Truth is—when Words are so put together in Propositions as exactly to express the agreement or disagreement of the ideas they stand for, as really it is. Certainty of Knowledge is—to perceive the agreement or disagreement of Ideas, as *expressed* in any Proposition. This we usually call 'knowing,' or 'being certain of' the truth of, any Proposition.

---

* The student should read Chap. XXIII. of Book II. and Chap. III. of Book III. in immediate connexion with the present; because much essential matter is here omitted, as being but a recapitulation of arguments already advanced in those chapters.—ED.

No proposition can be known to be true, where the essence of each species mentioned is not known.—Now, because we cannot be certain of the truth of any general proposition unless we know the precise bounds and extent of the *species* [which] its terms stand for, it is necessary we should know the Essence of each *species*, which is that which constitutes and bounds it. This, in all Simple Ideas and Modes, is not hard to do. For in these the Real and Nominal Essence being the same, or, which is all one, the *abstract idea*, which the *general term* stands for, being the *sole essence* and boundary that is or can be supposed of the *species*, there can be no doubt how far the *species* extends, or what things are comprehended under each term: which, it is evident, are all that have an exact conformity with the idea it stands for, and no other. But in Substances, wherein a Real Essence distinct from the Nominal is supposed to constitute, determine, and bound the *species*, the extent of the *general word* is very uncertain: because, not knowing this real Essence, we cannot know what is or is not of that *species*, and consequently what may or may not with certainty be affirmed of it. But where the Nominal Essence is kept to as the boundary of each *species*, and men extend the application of any general term no farther than to the particular things in which the complex idea it stands for is to be found, they are in no danger to mistake the bounds of each *species*, nor can be in doubt, on this account, whether any propositions be true. I have chose[n] to explain this uncertainty of propositions in this scholastic way, and have made use of the terms 'essences' and 'species,' on purpose to show the absurdity and inconvenience there is to think of them as of any other sort of *realities*, than [as being] barely—Abstract ideas with Names to them.

This more particularly concerns substances.—The Names of Substances, then, whenever made to stand for *species* which are supposed to be constituted by Real Essences which we know not, are not capable to convey *certainty* to the Understanding: of the Truth of general propositions made up of such terms we cannot be *sure;* since it is impossible for us to know that this or that quality or idea *has a necessary connexion* with a Real Essence, of which we have no idea at all, whatever *species* that supposed Real Essence may be imagined to constitute.

The truth of few universal propositions concerning substances is to be known.—On the other side, the Names of Substances, when made use of, as they should be, for the *ideas* [that] men have in their minds, though they carry a clear and determined signification with them, will not yet serve us to make *many* universal Propositions, of whose truth we can be certain. Not because in this use of them we are uncertain *what things* are signified by them, but because the Complex ideas [which] they stand for are such combinations of Simple ones as carry not with them any discoverable connexion with, or repugnancy [to], but a very few other ideas.

Because co-existence of ideas in few cases is to be known.—The Complex ideas that our Names of the *species* of Substances properly stand for, are—collections of such qualities as have been observed to co-exist in an unknown substratum which we call 'Substance;' but what other qualities necessarily co-exist with such combinations, we cannot certainly know, unless we can discover their *natural dependence;* which in their Primary Qualities we can go but a very little way in; and in all their Secondary Qualities we can discover no connexion at all, for the reasons mentioned [in] Chapter III.

As far as any such co-existence can be known, so far universal propositions may be certain.—So far as any Complex idea of any 'sort' of Substances contains in it any Simple idea whose *necessary co-existence* with any other may be discovered, so far universal propositions may with certainty be made concerning it: v. g. could any one discover a necessary connexion between *malleableness* and the *colour* or *weight* of 'gold,' or any other part of the Complex idea signified by that name, he might make a certain universal proposition concerning 'gold' in this respect; and the real truth of this proposition, that 'all gold is malleable,' would be as certain as of this, 'The three angles of all right-lined triangles are equal to two right ones.'

Judgment may reach farther, but that is not knowledge.—We are not therefore to wonder if *certainty* be to be found in very few *general* propositions made concerning Substances: our knowledge of their qualities and properties go[es] very seldom farther than our senses reach and inform us. Possibly inquisitive and observing men may, by strength of *judgment*, penetrate farther; and on *probabilities* taken from wary observation, and hints well laid together, often guess right at what experience has not yet discovered to them. But this is but guessing still; it amounts only to *opinion*, and has not that certainty which is requisite to Knowledge. For all *general* Knowledge lies only in our own thoughts, and consists barely in the contemplation of our own Abstract ideas.

What is requisite for our knowledge of substances.—Before we can have any tolerable Knowledge of this kind, we must know, *First*, what changes the Primary Qualities of one body do regularly produce in the primary qualities of another, and *how* [they produce them]. *Secondly*, *what* Primary Qualities of any body produce certain sensations or ideas in us. This is in truth no less than to know *all* the effects of Matter under its divers modifications of bulk, figure, cohesion of parts, motion, and rest; which, I think, every body will allow, is utterly impossible to be known by us without Revelation.

Wherein lies the general certainty of propositions.—To conclude: *general* Propositions, of what kind soever, are then only capable of *certainty*, when the terms used in them stand for such ideas whose agreement or disagreement, as there expressed, is capable to be discovered by us. And we are then certain of their truth or falsehood, when we perceive the ideas the terms stand for to agree or not agree, according as they are affirmed or denied one of another. Whence we may take notice, that *general* Certainty is never to be found *but in our ideas.* Whenever we go to seek it elsewhere in experiment or observations without us, our Knowledge goes not beyond *particulars. It is the contemplation of our own abstract ideas that alone is able to afford us general Knowledge.*

CHAPTER VII.

OF MAXIMS.

They are self-evident.—There [is] a sort of Propositions which, under the name of Maxims and Axioms, have passed for principles of Science, and, because they are self-evident, have been supposed *innate*, although nobody (that I know) ever went about to show the *reason* and foundation of their clearness or cogency. It may, however, be worth while to inquire into the reason of their evidence, and see whether it be peculiar to them alone, and also [to] examine how far they influence and govern our other Knowledge.

Wherein that self-evidence consists.—Knowledge, as has been shown, consists in the perception of the agreement or disagreement of ideas: now, where that agreement or disagreement is perceived immediately by itself, without the intervention or help of any other, there our Knowledge is self-evident. This will appear to be so to any one who will but consider any of those propositions which, without any proof, he assents to at first sight; for in all of them he will find that *the reason of his assent* is from that agreement or disagreement which the mind, by an immediate comparing [of] them, finds in those ideas, answering the affirmation or negation in the proposition.

Self-evidence not peculiar to received axioms.—This being so, in the next place it is plain that several other Truths, not allowed to be Axioms, partake equally with them in this self-evidence.

As to identity and diversity, all propositions are equally self-evident.—For, *First*, the immediate perception of the agreement or disagreement of Identity being founded in the mind's having *distinct* ideas, this affords us, [*First*], as many self-evident [*Mental**] propositions as we have distinct ideas. Every one that has any knowledge at all has, as the foundation of it, various and distinct ideas: and it is the first act of the mind (without which it can never be capable of any Knowledge) to *know* every one of its ideas by *itself*, and distinguish it from others. So that [*Secondly*, when these propositions become *Verbal*] all such affirmations and negations are made without any *possibility* of doubt, uncertainty, or hesitation, and must necessarily be assented to as soon as understood; that is, as soon as we have in our minds determined ideas which *the terms* in the proposition *stand for:* and this equally whether [1.] these propositions be in terms standing for more general ideas, or such as are less so; v. g. whether the general idea of 'being' be affirmed of itself, as in this proposition, 'whatsoever is, is;' or a more particular idea be affirmed of itself, as, 'a man is a man,' or 'whatsoever is white, is white:' or whether [2.] the idea of 'being' in general be denied of 'not-being,' which is the only (if I may so call it) *idea* different from it, as in this other proposition, 'it is impossible for the same thing to be, and not to be;' or any idea of any particular 'being' be denied of another different from it, as, 'a man is not a horse;' 'red is not blue.' The perception of 'being' or 'not-being' belongs no more to these vague ideas, signified by the terms 'whatsoever' and 'thing,' than it does to any other ideas: and therefore the truth of no general proposition can be known with a greater certainty, nor [can] add anything to this [self-evidence of particulars].

---

* See the distinction specified in page 344.—ED.

In co-existence we have few self-evident propositions.—*Secondly*, As to Co-existence—or, such necessary connexion between two ideas that, in the subject where one of them is supposed there the other must necessarily be also—of such agreement or disagreement as this the mind has an immediate perception but in very few of them; and therefore in this sort we have but very little Intuitive Knowledge. Nor are there to be found very many propositions that are self-evident, though some there are; v. g. the idea of filling a place equal to the contents of its superficies being annexed to our idea of 'body,' I think it is a self-evident proposition, that 'two bodies cannot be in the same place.'

In other relations we may have.—*Thirdly*, As to the Relations of Modes, mathematicians have framed many Axioms concerning that one relation of '*equality*:' as, 'Equals taken from equals, the remainder[s] will be equal;' which, with the rest of that kind, however they are received for Maxims by the mathematicians, and are unquestionable *truths*, yet I think that any one who considers them will not find that they have a clearer self-evidence than these, that 'one and one are equal to two;' that 'if you take from the five fingers of one hand two, and from the five fingers of the other hand two, the remaining numbers will be equal.' These and a thousand other such propositions may be found in Numbers, which, at the very first hearing, force the assent, and carry with them an equal, if not a greater clearness than those mathematical Axioms.

Concerning real existence we have none.—*Fourthly*, As to Real Existence, since that has no connexion with any other of our ideas but that [1.] of *ourselves*, and [2.] of a First Being, we have in that, concerning the real existence of all other beings, not so much as demonstrative, much less a self-evident, Knowledge; and therefore concerning those there are *no* Maxims.

These axioms do not much influence our other knowledge. —In the next place let us consider what influence these received Maxims have upon the other parts of our Knowledge. The rules established in the Schools—That all reasonings are *ex præcognitis et præconcessis*—seem to lay the foundation of all other Knowledge in these Maxims, and to suppose them to be *præcognita;* whereby I think are meant these two things: First, that these Axioms are those Truths that are *first known* to the mind; and, Secondly, that upon them *the other parts* of our Knowledge *depend.*

Because they are not the truths we first knew.—*First,* That they are *not* the Truths *first* known to the mind is evident to *experience:* [for] such self-evident truths must be *first known* which consist of ideas *that are first in the mind;* and the ideas *first* in the mind, it is evident, are those of *particular* things, from whence, by slow degrees, the Understanding *proceeds* to some few general ones; which, being taken from the ordinary and familiar objects of sense, are settled in the mind with *general* Names to them. Thus *particular* ideas are first received and distinguished, and so Knowledge got about them; and next to them *the less* general or specific, which are next to *particular:* for, abstract ideas are not so obvious or easy to children or the yet unexercised mind, as particular ones. If they seem so to grown men, it is only because by constant and familiar *use* they are made so: for when we nicely reflect upon them, we shall find that general ideas are fictions and contrivances of the mind, that carry *difficulty* with them, and do not so easily *offer* themselves as we are apt to imagine. For example: Does it not require some pains and skill to form the general idea of a 'triangle?' (which is yet none of the most abstract, comprehensive, and difficult); for it must be *neither* oblique-[angled], nor [right-angled]; *neither* equilateral, equicrural, nor scalen[e]; but *all* and *none* of these at once. In effect, it is something *imperfect*, that cannot exist ; an idea wherein *some* parts of several *different* and *inconsistent* ideas are put together. It is true, the mind in this imperfect state has *need* of such ideas, and makes all the haste to them it can, for the *conveniency* of communication and enlargement of Knowledge; to both which it is naturally very much inclined. But yet one has reason to suspect such ideas are marks of our imperfection; at least this is enough to show that the most *abstract* and *general* *not* those that the mind is *first* and *most* *easily* acquainted with; nor such as its earliest Knowledge is conversant about.

Because on them the other parts of our Knowledge do not depend.—Secondly, From what has been said, it plainly follows that these magnified Maxims *are not* the principles and *foundations* of all our other Knowledge. For, if there be [1.] a great many other truths which have *as much* self-evidence as they, and [2.] a great many that we know *before* them, it is impossible *they* should be the *principles* from which we deduce all other truths.

What use these general maxims are.—What shall we then say? Are these general Maxims of no use? By no means; though perhaps their use is not that which it is commonly taken to be. But since doubting in the least of what has been by some men ascribed to these maxims, may be apt to be cried out against, as overturning the foundations of all the sciences, it may be worth while to consider them, with respect to other parts of our Knowledge, and examine more particularly to what purposes they serve, and to what not.

(1). It is evident, from what has been already said, that they are of no use to prove or confirm less general self-evident propositions.

(2). It is as plain that they are not, nor have [they] been, the foundations whereon any science has been built. There is, I know, a great deal of talk, propagated from scholastic men, of sciences, and the maxims *on which* they are built; but it has been my ill luck never to meet with any such sciences, much less any one built upon these two maxims, 'what is, is;' and 'it is impossible for the same thing to be and not to be.' And I would be glad to be *shown* where any such Science, erected upon these, or any other general Axioms, is to be found. I ask, whether these general Maxims have not the same use in the study of divinity, and in theological questions, that they have in the other Sciences? They serve here, too, to silence wranglers, and put an end to dispute. But I think that nobody will therefore say, that the Christian religion *is built on* these Maxims, or that the knowledge we have of it is *derived* from these *principles.* It is from Revelation we have received it, and without Revelation these Maxims had never been able to help us to it. When we find out an idea, by whose intervention we discover the connexion of two others, this is a Revelation from God to us *by the voice of Reason.* For we then come to *know* a truth that we did not know before. When God *declares* any Truth to us, this is a *Revelation* to us by the voice of His Spirit, and we are advanced in our Knowledge. But in neither of these do we receive our light or knowledge from Maxims. But in the one, the things themselves afford it, and we see the truth in them by perceiving their agreement or disagreement; in the other, God Himself affords it *immediately* to us, and we see the truth of what He says in His unerring veracity.

(3). They are not of use to *help men forward* in the advancement of Sciences, or new discoveries of yet unknown truths. Mr. Newton, in his never enough to be admired book, has demonstrated several propositions which are so many new truths, before unknown to the world, and are farther advances in mathematical knowledge: but for the discovery of these, it was not the general maxims 'what is, is,' or, 'the whole is bigger than a part,' or the like, that helped him. These were not the clues that led him into the *discovery* of the truth and *certainty* of those propositions. Nor was it by them that he *got* the knowledge of those demonstrations; but by finding out *intermediate* ideas, that showed the agreement or disagreement of the ideas, as expressed in the propositions [which] he demonstrated. This is *the great exercise and improvement* of Human Understanding in the enlarging of Knowledge, and advancing the Sciences; wherein they are far enough from receiving any help from the contemplation of these or the like magnified Maxims. Would those who have [such a] traditional admiration of these propositions, that they think no step can be made in Knowledge without the support of an axiom—no stone laid in the building of the sciences without a general Maxim—but distinguish between the method of *acquiring* Knowledge, and of *communicating*—between the method of *raising* any Science, and that of *teaching* it to others as far as it is advanced—they would see that those general Maxims were *not* the foundations on which the first discoverers raised their admirable structures, nor the keys that unlocked and opened those secrets of Knowledge. Though afterwards, when schools were erected, and sciences had their professors to teach what others had found out, they often made use of Maxims—i. e. laid down certain propositions which *were* self-evident, or *to be received* for true—which, being settled in the minds of their scholars as unquestionable verities, they on occasion made use of to convince them of truths in *particular* instances, that were not so familiar to their minds as those general axioms which had before been *inculcated* [on] them, and carefully *settled* in their minds. Though these particular instances, *when well reflected on*, are *no less* self-evident to the Understanding, than the general Maxims brought to confirm them; and it was in those particular instances that the first discoverer found the truth, *without the help of* the general Maxims: and so may any one else do, who with attention considers them.

To come, therefore, to the *use* that is made of Maxims.

1. They are of use, as has been observed, *in the ordinary methods of teaching* Sciences, as far as they are advanced: but of little or none in advancing them farther. [For instance] masters of mathematics, when they would, as teachers of what they know, initiate others in that science, do not without reason place Maxims [or, *Axioms*] at the entrance of their systems; that their scholars, having in the beginning perfectly acquainted their thoughts with these propositions made in such general terms, may be used to make such reflections, and have these more general propositions as *formed rules and sayings*, ready to apply to all particular cases. Not that if they be equally weighed, they are more clear and evident than the particular instances [which] they are brought to confirm; but that being more *familiar* to the mind, the very naming them is enough to *satisfy* the Understanding. By which familiar use of them, as rules to measure the truth of other propositions, it comes in time to be thought that more particular propositions have their truth and evidence *from* their conformity to these more general ones, which in

discourse and argumentation are so frequently urged and constantly admitted. And this I think to be the reason why, amongst so many self-evident propositions, *the most general only* have had the title of Maxims.

2. They are of use in disputes, *for the silencing of obstinate wranglers*, and bringing those contests to some conclusion. The Schools, having made *disputation* the touchstone of men's abilities, and the criterion of Knowledge, adjudged victory to him that kept the field; and he that had the last word was concluded to have the better of the *argument*, if not of the *cause*. But because by th[ese] means there was like to be no *decision* between skilful combatants, whilst one never failed of a *medius terminus* to prove *any* proposition, and the other could as constantly, without or with a distinction, *deny* the major or minor, to prevent, as much as could be, the running out of disputes into an endless train of syllogisms, certain *general* Propositions—most of them indeed self-evident—were introduced into the Schools; which—being such as all men allowed and agreed in—were looked on as *general measures* of Truth, and served instead of *principles* (where the disputants had not laid down any other between them), beyond which there was no going, and which must not be receded from by either side. And thus these maxims getting the name of 'principles,' beyond which men in dispute *could not retreat*, were by mistake taken to be the *originals* and *sources* from whence all Knowledge began, and the foundations whereon the Sciences were built.

This method of the Schools (which have been thought the fountains of Knowledge) introduced, as I suppose the like use of these Maxims into a great part of conversation out of the Schools, to stop the mouths of cavillers, whom any one is excused from arguing any longer with when they deny these general self-evident principles received by all reasonable men who have once thought of them. They, in truth, when urged in such cases, *teach* nothing; that is *already done* by the intermediate ideas [or, proofs] made use of in the debate, whose connexion may be seen without the help of those maxims, and so the truth known before the maxim is produced and the argument brought to a first principle. Men would give off a wrong argument before it came to that, if in their disputes they proposed to themselves the finding and embracing of Truth, and not a contest for victory. And thus Maxims have their use, to put a stop to their perverseness whose ingenuity should have yielded sooner.

Maxims, if care be not taken in the use of words, may prove contradictions.—One thing farther, I think, it may not be amiss to observe concerning these general Maxims—that they are so far from improving or establishing our minds in true Knowledge, that if our notions be wrong, loose, or unsteady, and we resign up our thoughts to the sound of Words, rather than fix them on settled determined ideas of things, I say, these general Maxims will serve to *confirm us in mistakes;* and in such a use of Words [as] is most common, will serve to *prove contradictions.* V. g. he that with Des Cartes shall frame in his mind an idea of what he calls 'body' to be nothing but 'extension,' may easily demonstrate that 'there is no vacuum'—i. e. no space void of body—by this Maxim, 'what is, is:' for, the idea to which he annexes the *name* 'body' being bare *extension*, his knowledge that 'space cannot be without body' is *certain:* for he knows *his own* idea of 'extension' *clearly* and *distinctly*, and knows that it is what it is, and not another idea, though it be called by these three *names*, 'extension,' 'body,' 'space.' Which three words, standing for one and the same idea, may, no doubt, with the same evidence and certainty be affirmed one of another, as each of itself: and it is as certain, that whilst I use them *all* to stand for *one* and the same idea, this predication is as true and identical in its signification—that 'space is body'—as this predication is true and identical—that 'body is body;' both in signification and sound.

Instance in vacuum.—But if another shall come and make to himself *another* idea, different from Des Cartes', of the thing which yet with Des Cartes he calls by the same *name* 'body,' and make his idea, which he expresses by the word 'body,' to be of 'a thing that hath both *extension* and *solidity*' together, he will as easily demonstrate that there *may be* a vacuum, or space without a body, as Des Cartes demonstrated the contrary. Because the idea to which he gives the name 'space' being barely the simple one of 'extension,' and the idea to which he gives the name 'body' being the complex idea of 'extension and resistibility,' (or 'solidity'), together in the same subject, these two ideas are not exactly one and the same, but [are] in the understanding as distinct as the ideas of one and two, white and black, or as of corporeity and humanity (if I may use those barbarous terms): and therefore the predication of them in our minds, or in words standing for them, is not identical; but the negation of them, one of another, viz. this proposition—'extension or space is not body'—is as true and evidently certain as this maxim, 'it is impossible for the same thing to be and not to be,' can make any proposition.

They prove not the existence of things without us.—But yet, though both these propositions may be equally demonstrated, viz. that 'there may be a vacuum,' and that 'there cannot be a vacuum,' by these two *certain* principles, viz. 'what is, is,' and, 'the same thing cannot be and not be,' yet neither of these principles will serve to prove to us, that *any*, or *what*, bodies *do exist:* for *that* we are left to our senses to discover to us as far as they can. Those universal and self-evident principles being only our constant, clear, and distinct knowledge of *our own ideas*, more general or comprehensive, can assure us of nothing that passes *without* the mind; their certainty is founded only upon the knowledge we have of *each idea by itself*, and of its distinction from others; about which we cannot be mistaken whilst they are in our minds, though we may be, and often are, mistaken, when we retain the *names* without the *ideas*, or use them confusedly sometimes for one and sometimes for another idea. In which cases, the force of these Axioms, reaching only to the sound and not the signification of the word, serves only to lead us into confusion, mistake, and error. It is to show men, that these Maxims, however cried up for the great guards to truth, will not secure them from error in a careless, loose use of their Words, that I have made this remark. In all that is here suggested concerning their little use for the improvement of Knowledge, or dangerous use in undetermined ideas, I have been far enough from saying or intending they should be laid aside, as some have been too forward to charge me. I affirm them to be *truths*—self-evident truths—and so cannot be laid aside. As far as their influence *will* reach, it is in vain to endeavour, nor would I attempt, to abridge it. But yet, without any injury to Truth or Knowledge, I may have reason to think their use is not answerable to the great stress which seems to be laid on them, and I may warn men not to make an ill use of them for the confirming themselves *in errors*.

Their application dangerous about complex ideas.—[Again], when these principles, viz. 'what is, is,' and 'it is impossible for the same thing to be and not to be,' are made use of in the probation of propositions wherein are words standing for *complex* ideas, v. g. 'man,' 'horse,' 'gold,' 'virtue,' there they are of *infinite danger*, and most commonly make men receive and retain falsehood for manifest truth, and uncertainty for demonstration: upon which follow error, obstinacy, and all the mischiefs that can happen from wrong reasoning. The reason whereof is—not that these principles are less true, or of less force in proving propositions made of terms standing for complex ideas, than where the propositions are about simple ideas, but—because men mistake generally, thinking that where the same *terms* are preserved, the propositions are about the same *things*, though the ideas they stand for are in truth different. Therefore these Maxims are made use of to support those which in sound and appearance are contradictory propositions; as is clear in the demonstrations above mentioned about a vacuum. So that whilst men take words for things, as usually they do, these Maxims may and do commonly serve to prove contradictory propositions: as shall yet be farther made manifest.

Instance in man.—For instance: Let 'man' be that concerning which you would by these first principles demonstrate anything; and we shall see that so far as demonstration is by these principles it is only verbal, and gives us no certain, universal, true proposition,—or Knowledge of any 'being' existing without us. *First*—A child having framed the *idea* of a 'man,' it is probable that his idea is just like that picture which the painter makes of the *visible appearances* joined together; and such a complication of ideas together in his understanding makes up the single complex idea which he calls 'man;' whereof white or flesh-colour in England being one, the child can *demonstrate* to you that a negro is not a 'man,' because white colour was one of the *constant* simple ideas of the complex idea *he calls* 'man:' and therefore he can demonstrate by the principle, 'it is impossible for the same thing to be and not to be,' that 'a negro is not a man;' the foundation of his certainty being—not that universal proposition which, perhaps, he never heard or thought of, but—the clear, *distinct* perception he has of *his own* simple ideas of 'black' and 'white,' which he cannot be persuaded to take, nor *can ever* mistake, one for another, whether he ows that Maxim or not. And to this child, or any one who has such an idea which he calls 'man,' you can never demonstrate that a 'man has a soul,' because *his idea* of 'man' includes no such notion or idea in it: and therefore to him the principle of 'what is, is,' proves not this matter; but it depends upon *collection* and observation, by which he is to make his complex idea called 'man.'

Secondly, Another, that has gone farther in framing and *collecting* the idea [which] he calls 'man,' and to the outward shape adds 'laughter' and 'rational discourse,' may demonstrate that infants and changelings are not 'men' by this maxim, 'it is impossible for the same thing to be and not to be:' and I have discoursed with very rational men who have actually denied that they are 'men.'

Thirdly, Perhaps another makes up the complex idea which he calls 'man,' only out of the ideas of 'body' in general, and the 'powers of language and reason,' and leaves out the '*shape*' wholly. This man is able to demonstrate that a 'man' may have no hands, but be *quadrupes*, neither of those being included in his idea of 'man;' and in whatever body or shape be found 'speech and reason joined,' *that* was a 'man:' because, having a *clear knowledge* of such a complex *idea*, it is certain that 'what is, is.'

Little use of these maxims in proofs where we have clear and distinct ideas.—So that, if rightly considered, I think we may say, that where our ideas are *determined* in our minds, and have annexed to them by us *known and steady* names under those settled determinations, there is little need—or no use at all—of these Maxims *to prove* the agreement or disagreement of any of them.

CHAPTER VIII.

OF TRIFLING PROPOSITIONS.

Some propositions bring no increase to our knowledge.—Whether the Maxims treated of in the foregoing chapter be of [such] use to Real Knowledge as is generally supposed, I leave to be considered. This, I think, may confidently be affirmed, that *there are* Universal Propositions which—though they be *certainly true*—yet add no light to our Understanding—bring no increase to our Knowledge: Such are,

As identical propositions.—First, All purely *identical* Propositions: [by which] I mean such wherein the same term, *importing the same idea,* is affirmed of itself. These obviously and at first blush appear to contain no instruction in them: for when we affirm the said term of itself, whether it be barely verbal, or whether it contain any clear and real idea, it shows us nothing but what we must certainly know before, whether such a proposition be either made by, or proposed to, us.

When a part of any complex idea is predicated of the whole.—Secondly, Another sort of *Trifling* Propositions is—when a *part* of the complex idea is predicated of the name of the whole: a part of the definition [predicated] of the word defined. Such are all propositions wherein the *genus* is predicated of the *species;* or more comprehensive of less comprehensive terms: for, what information, what knowledge, carries this proposition in it, viz. 'lead is a metal,' to a man who *knows* the complex *idea* the name 'lead' stands for?

all the simple ideas that go to the complex one signified by the term 'metal' being nothing but what he *before* comprehended, and signified by the name 'lead.' Indeed, to a man that knows the signification of the word 'metal,' and not of the *word* 'lead,' it is a shorter way to explain the signification of the *word* 'lead' by saying, 'it is a metal,' which at once expresses several of its simple ideas, than to enumerate them one by one, telling him, 'it is a body very heavy, fusible, and malleable.'

As, part of the definition of the term defined.—A like trifling it is to predicate *any other part* of the definition of the term defined; or to affirm any one of the simple ideas, [composing] a complex one, of the name of the whole complex idea, as, 'all gold is fusible.' For, fusibility being one of the simple ideas that *go to making up* the complex one [which] the sound 'gold' stands for, what can it be but playing with sounds to affirm *that* of the *name* 'gold' which is comprehended in its received *signification?* It would be thought little better than ridiculous to affirm gravely as a truth of moment, that 'gold is yellow;' and I see not how it is any jot more material to say, 'it is fusible,' unless that quality be *left out* of the complex idea of which the sound 'gold' is the mark in ordinary speech. But he that shall tell me, that in whatever thing 'sense,' 'motion,' 'reason,' and 'laughter,' were united, that thing had 'a notion of God,' or would be 'cast into a sleep by opium,' made indeed an *instructive* proposition; because *neither* 'having the notion of God,' nor 'being cast into sleep by opium,' being *contained in* the idea signified by the word 'man,' we are by such propositions taught *something more* than barely what the word 'man' stands for: and therefore the Knowledge contained in it is more than *verbal.*

For this teaches but the signification of words.—Before a man makes any proposition, he is supposed to understand the *terms* he uses in it. The hearer, also, is supposed to understand the terms as the speaker uses them. And therefore he trifles with Words, who makes such a proposition, which, when it is made, contains no more than one of the terms does, and which a man was supposed to know before. And this is no farther tolerable than where a man goes to explain his terms to one who is supposed, or declares himself, not to understand him; and then it teaches only the signification of that Word and the use of that *sign.*

But no real knowledge.—We can know, then, the truth of two sorts of Propositions with perfect *certainty;* the one is, of those *trifling* propositions which have a certainty in them, but it is only a *verbal* certainty, but not instructive. And, secondly, we can know the truth—and so may be certain—in propositions which affirm something of another, which is *a necessary consequence* of its precise complex idea, but *not contained* in it: as that 'the external angle of all triangles is bigger than either of the opposite internal angles;' which relation of the outward angle to either of the opposite internal angles making no part of the complex idea signified by the name 'triangle,' this is a *real* truth, and conveys with it *instructive,* real, Knowledge.

General propositions concerning substances are often *trifling.*—We, having little or no *knowledge* of what combinations there [may] be of simple ideas existing together in Substances but by our senses, cannot make any universal, *certain* Propositions concerning them any farther than our Nominal Essences lead us; which being to a very few and inconsiderable truths, in respect of those which depend on their real constitutions, [*Thirdly*] the general propositions that are made about Substances, if they are certain, are, for the most part, but *trifling*. And if they are *instructive*, [they] are *uncertain*, and such [that] we can have no *knowledge* of their real truth, how much soever constant observation and analogy may assist our *judgments* in guessing. Hence it comes to pass, that one may often meet with very clear and coherent discourses that amount yet to nothing. For, it is plain, that Names of substantial beings, as well as others, as far as they have relative significations affixed to them, may, with great *truth*, be joined negatively and affirmatively in propositions, as their relative definitions make them fit to be so joined; and propositions consisting of such terms may, with the same *clearness*, be deduced one from another, as those that convey the most real truths; and all this, without any *knowledge* of the *nature* or *reality* of things existing without us. By this method one may make demonstrations and undoubted propositions in words, and yet thereby advance not one jot in the knowledge of the *truth* of things.

And why.—He that has liberty to ‘define,’ i. e. determine the signification of his Names of Substances (as certainly every one does in effect who makes them stand for his own ideas), and makes their significations at a venture, taking them from his own or other* men's *fancies*, and not from an examination or inquiry into the *nature of things* themselves, may, with little trouble, demonstrate them one of another, according to those several respects and mutual relations [which] he has given them one to another; wherein, however things agree or disagree in their own nature, he *needs* mind nothing but *his own* notions, with the names he has bestowed upon them: but thereby no more increases his own knowledge, than *he* does his riches who, taking a bag of counters, calls one in a certain place, 'a pound,' another 'a shilling,' and a third 'a penny;' and so proceeding, may undoubtedly *reckon right*, and cast up a great sum *according to his counters*, without being one jot the richer, or without even knowing *how much* a pound, shilling, or penny is, but only that one is contained in the other twenty times, and contains the other twelve.

Using words variously is trifling with them.—[*Fourthly*]† Though yet concerning most words used in discourses, especially argumentative and controversial, there is this more to be complained of, which is the worst sort of trifling, and which sets us yet farther from the certainty of Knowledge [which] we hope to attain by them, or find in them, viz.—that most writers are so far from instructing us in the nature and knowledge of things, that they use their words loosely and uncertainly; and do not, by using them constantly and steadily in the same significations, make plain and clear deductions of words one from another, and make their discourses coherent and clear, (how little soever it were instructive); which were not difficult to do, did they not find it convenient to shelter their ignorance or obstinacy under the obscurity and perplexedness of their terms: to which, perhaps, inadvertency and ill custom do much contribute.

---

* The Twenty-ninth Edition, 8vo.—one in very general use—has 'or rather;' which is evidently an erroneous reading.—Ed.

† 'Fourthly' is here substituted for the usual 'Thirdly:' for it is plain that in page 371 a 'third' *distinct* class of 'Trifling Propositions' has been already exhibited.—Ed.

Marks of verbal propositions.—To conclude; barely *verbal* Propositions may be known by these following marks:

Predication in abstract.—*First*, All Propositions wherein two Abstract terms are affirmed one of another, are barely about the signification of *sounds*. For, since no Abstract *idea* can be the same with any other but itself, when its Abstract *name* is affirmed of any other term it can signify no more but this—that it may or ought to be called by *that* Name—or—that these two Names signify the *same* Idea. Thus should any one say, that 'parsimony is frugality,' that 'gratitude is justice,' that this or that action is or is not 'temperance;' however specious these and the like propositions may at first sight seem, yet when we come to press them and examine nicely what they contain, we shall find that it all amounts to nothing but the signification of those *terms*.

A part of the definition predicated of any term.—*Secondly*, All Propositions wherein a part of the complex idea which any term stands for is predicated of that term, are only *verbal;* v. g. to say, that 'gold is a metal,' or 'heavy.' And thus all propositions wherein more comprehensive words, called *genera*, are affirmed of subordinate, or less comprehensive, called *species* or individuals, are barely verbal.

◆

CHAPTER IX.

OF OUR KNOWLEDGE OF EXISTENCE.

General certain propositions concern not existence.—Hitherto we have only considered the Essences of things, which—being only Abstract ideas, and thereby removed in our thoughts from *particular* Existence (that being the proper operation of the mind in Abstraction, to consider an idea under no other *existence* but what it has *in* the Understanding)—give us no Knowledge of *real* Existence at all. Where, by the way, we may take notice, that *universal* Propositions, of whose truth or falsehood we can have *certain* Knowledge, concern not Existence; and farther, that all *particular* affirmations or negations that would not be *certain* if they were made *general*, are only concerning Existence; they declaring only the *accidental* union or separation of ideas, in things *existing*, which in their Abstract natures have no known necessary union or repugnancy.

A threefold knowledge of existence.—Let us proceed now to inquire concerning our Knowledge of the Existence of things, and how we come by it. I say, then, that we have the Knowledge of our own Existence by *intuition;* of the Existence of God by *demonstration;* and of [that of] other things by *sensation.*

Knowledge of our own existence.—As for *our own* Existence, we *perceive* it so *plainly* and so *certainly* that it neither needs, nor is capable of, any *proof*. For *nothing can be more* evident to us than our own existence. I think —I reason—I feel pleasure and pain: can any of these be *more* evident to me than my own existence? If I doubt of all other things, *that very doubt* makes me *perceive* my own existence, and will not suffer me to doubt *of that*. For if I *know* I feel pain, it is evident I have as *certain* perception of my own existence, as of the existence of the pain [that] I feel: or if I *know* I doubt, I have as *certain* perception of the existence of *the thing doubting*, as of that *thought* which I call 'doubt.' Experience, then, *convinces* us that we have an Intuitive knowledge of our own existence; and an internal, *infallible*, perception that—*we are*. In every act of sensation, reasoning, or thinking, we are *conscious* to ourselves of our own being; and, in this matter, come not short of the *highest* degree of certainty.

◆

CHAPTER X.

OF OUR KNOWLEDGE OF THE EXISTENCE OF A GOD.

We are capable of knowing certainly that there is a God. — Though God has given us no *innate* ideas of Himself [any more than of other existence] — though He has stamped no *original* characters on our minds, wherein we may read His being, yet, having furnished us with those faculties with [which] our minds are endowed, He hath not left Himself without witness; since we have *sense*, *perception*, and *reason*, and cannot want a clear proof of Him as long as we carry *ourselves* about us. Nor can we justly complain of our ignorance in this great point, since He has so plentifully provided us with the means to discover and know Him, *so far as is necessary* to the end of our being, and the great concernment of our happiness. But though this be the most obvious truth that reason discovers, and though *its evidence* be (if I mistake not) *equal to mathematical certainty*, yet it requires thought and attention, and the mind must apply itself to a regular deduction of it from *some part* of our Intuitive Knowledge, or else we shall be as uncertain and ignorant of this as of other propositions which are in themselves capable of clear demonstration. To show, therefore, [1.] that we are capable of knowing—i. e. *being certain*—that THERE IS A GOD, and [2.] how we may come by this certainty, I think we need go no farther than ourselves, and that *undoubted* Knowledge [which] we have of *our own existence.*

Man knows that he himself is.—I think it is beyond question, that Man has *a clear* perception of his own being; he knows *certainly* that he exists, and that he *is something.*

He knows also that nothing cannot produce a being, therefore [*there is*] *something eternal.*—In the next place, Man knows by an *intuitive certainty* that bare nothing can no more produce any *real* being, than it can be equal to two right angles. If a man knows not that nonentity — or the absence of all being—cannot be equal to two right angles, it is impossible he should know any demonstration in Euclid. If therefore we know *there is some* real 'being,' and that nonentity cannot produce *any* real being, it is an evident demonstration, that *from eternity* there has been *something;* since what was not from eternity had a *beginning;* and what had a beginning must be produced by *something else.*

That Eternal Being must be most powerful.—Next, it is *evident*, that what had its being and beginning *from another*, must also have *all* that which is in, and belongs to, *its being from* another. All the powers [that] it has must be owing to, and received from, the same source. This *eternal* source, then, of all 'being' must also be the source and original of all Power; and so this Eternal Being must be also the most Powerful.

And most knowing.—Again: a man finds in *himself* Perception and Knowledge. We have, then, got one step farther; and we are certain now that there is not only some 'being,' but—some Knowing, Intelligent, Being in the world.

There [either] was a time, then, when there *was no* Knowing Being, and when Knowledge *began* to be; or else there has been also a Knowing Being from eternity. If it be said, 'There was a time when *no* being had *any* knowledge—when that Eternal Being was void of all Understanding,'—I reply, that then it was impossible there should *ever have been* any knowledge; it being as impossible that things wholly void of knowledge, and operating blindly and without any perception, should produce a knowing being, as it is impossible that a triangle should make [for] itself three angles bigger than two right ones. For, it is as repugnant to the idea of senseless matter that it should put into itself sense, perception, and knowledge, as it is repugnant to the idea of a triangle that it should put into itself greater angles than two right ones.

And therefore God.—Thus from the consideration of *ourselves*, and what we infallibly find in our own *constitutions*, our Reason leads us to the Knowledge of this certain and evident truth—that *there is* an Eternal, most Powerful, and most Knowing Being; which whether any one will please to *call* "GOD," it matters not. The *thing* is evident; and from this idea duly considered, will easily be deduced all those other attributes which we ought to ascribe to this Eternal Being. If, nevertheless, any one should be found so senselessly arrogant as to suppose man alone knowing and wise—but yet the product of mere ignorance and chance,—and that all the rest of the universe acted only by that blind hap-hazard, I shall leave with him that very rational and emphatic rebuke of Tully, lib. ii. *De Leg.* to be considered at his leisure: *Quid est enim verius quam neminem esse oportere tam stulte arrogantem, ut in se mentem et rationem putet inesse, in cœlo mundoque non putet? Aut ea quæ vix summâ ingenii ratione comprehendat, nullâ ratione moveri putet?*

From what has been said, it is plain we have *a more certain* Knowledge of the Existence of a GOD, than of any thing [that] our senses have not *immediately* discovered to us. Nay, I presume I may say, that we more certainly know that there is a GOD, than that there is *any thing else* [existing] without us. When I say 'we know,' I mean there is such a Knowledge *within our reach* which we cannot miss, if we will but apply our minds to that, as we do to several other inquiries.

Something from eternity.—There is no truth more evident than that—*something must be from eternity.* I never yet heard of any one so unreasonable [as to] suppose so manifest a contradiction as a time wherein there was *perfectly nothing;* this being of all absurdities the greatest, to imagine that pure nothing—the perfect negation and absence of all beings—should ever produce any real existence.

It being, then, unavoidable for all rational creatures to conclude that *something* has existed from eternity, let us next see *what kind* of thing that must be.

Two sort of beings, cogitative and incogitative.—There are but *two* sorts of beings in the world that man knows or conceives:

First, Such as are purely *material*—without sense, perception, or thought—as the clippings of our beards, and parings of our nails.

Secondly, Sensible, thinking, perceiving beings, such as we find ourselves to be; which we will hereafter call 'cogitative and incogitative beings;' terms which, to our present purpose, if for nothing else, are perhaps better than 'material and immaterial.'

Incogitative being cannot produce a cogitative.—If, then, there must be *something* Eternal, let us see *what sort* of being it must be. And to that [end] it is very obvious to reason, that it must necessarily be—a cogitative being. For it is as impossible to conceive that ever bare *incogitative* matter should produce a *thinking* intelligent being, as that *nothing* should of itself produce *matter*.

Therefore there has been an eternal wisdom.—If therefore it be evident that something necessarily must exist from eternity, it is also as evident that that something must necessarily be a cogitative being. For it is as impossible that incogitative matter should produce a cogitative Being, as that nothing, or the negation of all being, should produce a positive being or matter.

Though this discovery of the necessary existence of an eternal mind does sufficiently lead us into the knowledge of GOD, since it will hence follow that all other knowing beings that have a beginning must depend on Him, and have no other ways of knowledge, or extent of power, than what He gives them; and therefore, if He made those, He made also the less excellent pieces of this universe—all inanimate beings—whereby his Omniscience, Power, and Providence will be established, and all His other Attributes necessarily follow: yet to clear up this a little farther, we will see what doubts can be raised against it.

Whether material or not.—*First*, Perhaps it will be said, that though it be as clear as demonstration can make it, that there must be an Eternal Being, and that Being must also be *knowing*, yet it does not follow but [that] that *thinking* Being may also be *material*. Let it be so; it still equally follows that there is a GOD. For if there be an Eternal, Omniscient, Omnipotent Being, it is certain that *there is* a GOD, whether you imagine that being to be *material* or not. But herein, I suppose, lie the danger and deceit of that supposition: there being no way to avoid the demonstration, that there is an Eternal Knowing Being, men devoted to *matter* would willingly have it granted that this knowing Being is *material;* and then letting slide out of their minds, or the discourse, the demonstration whereby an eternal knowing Being was proved necessarily *to exist*, would argue *all* to be matter, and so *deny* a God—that is, an Eternal Cogitative Being. Whereby they are so far from establishing, that they destroy, their own hypothesis: for if there can be, in their opinion, eternal 'matter' without any eternal cogitative being, they manifestly *separate* 'matter' and 'thinking,' and suppose no necessary connexion of the one with the other, and so establish *the necessity of* an Eternal *Spirit*, but not of *matter;* since it has been proved already, that an eternal cogitative being is unavoidably to be granted.

Not material: Because every particle of matter is not cogitative.—But now let us see how * they can satisfy themselves or others, that this Eternal Thinking Being *is* material.

First, I would ask them, whether they imagine that *all* 'matter'—*every* particle of matter—thinks? This, I suppose, they will scarcely say, since then there would be as many eternal thinking beings as there are particles of matter, and so an infinity of gods. And yet, if they will not allow matter, as 'matter'—that is, every particle of matter—to be as well *cogitative* as *extended*, they will have as hard a task to make out to their own reasons a 'cogitative being' out of *incogitative* particles, as an 'extended being' out of *unextended* parts.

---

* For 'let us see how' another reading is, 'let us suppose.'—ED.

One particle alone of matter cannot be cogitative.—Secondly, If all 'matter' does not *think*, I next ask, whether it be only *one* atom that does so? This has as many absurdities as the other.

A system of incogitative matter cannot be cogitative.—Thirdly, If, then, neither one peculiar atom alone can be this Eternal Thinking Being, nor all matter, as 'matter,' i. e. every particle of matter, can be it, it only remains that it is some certain *system* of matter duly put together that is this Thinking Eternal Being. This is that which I imagine is that notion which men are aptest to have of GOD, who would have him a *material* Being, as most readily suggested to them by the ordinary conceit they have of themselves and other men, which they take to be 'material thinking beings.' But this imagination, however more natural, is no less absurd than the other: for, to suppose the Eternal Thinking Being to be nothing else but a 'composition of particles of matter,' *each whereof is incogitative*, is to ascribe all the wisdom and knowledge of that eternal Being only to the *juxta-position* of parts; than which nothing can be more absurd.

Whether in motion, or at rest.—But farther: this corporeal system either has all its parts at rest, or it is a certain *motion* of the parts wherein its *thinking consists.* If it be perfectly at rest, it is but one *lump*, and so can have no privileges above one *atom.*

If it be the motion of its *parts* on which its thinking depends, all the thoughts there must be unavoidably accidental and limited, since all the particles that by motion cause thought, being *each* of them in itself *with-*

out any thought, cannot regulate its own motions, much less be regulated by the thought of the whole, since that thought is not the *cause* of motion (for then it must be *antecedent* to it, and so *without* it) but the *consequence* of it, whereby freedom, power, choice, and all rational and wise thinking or acting, will be quite taken away.

Matter not co-eternal with an eternal Mind.—Others would have matter to be eternal, notwithstanding that they allow an Eternal, Cogitative, Immaterial Being. This, though it take not away the *being* of a God, yet, since it denies one, and the first, great piece of his workmanship—the Creation—let us consider it a little. Matter must be allowed *eternal:* why? Because you cannot conceive how it can be made out of *nothing:* why do you not also think *yourself eternal?* You will answer, perhaps, 'Because about twenty or forty years since you began to be.' But if I ask you what that 'you' is, which began then to be, you can scarcely tell me. The *matter* whereof you are made *began* not then to be; for if it did, then it is *not* eternal; but it began to be *put together* in such a fashion and frame as makes up your *body;* but yet that frame of particles is not 'you'—it makes not that *thinking thing* 'you' are—(for I have now to do with one who allows an eternal, immaterial, thinking being, but would have unthinking matter eternal too); therefore *when* did that thinking thing begin to be? If it did never begin to be, then have you *always* been a thinking thing from eternity: the absurdity whereof I need not confute till I meet with one who is so void of understanding as to *own* it.

But you will say, 'Is it not impossible to admit of the making anything out of nothing, since we cannot possibly *conceive it?*' I answer, No: Because it is not reasonable to deny the *power* of an Infinite Being because *we* cannot comprehend its *operations*. We do not deny *other* effects upon this ground, because we cannot possibly conceive *the manner* of their production. In the mean time, it is an overvaluing ourselves, to *reduce* all to the narrow measure of *our* capacities, and to conclude *all* things impossible to be done whose manner of doing exceeds *our* comprehension. This is to make our comprehension *infinite*, or GOD *finite*, when what He can *do* is limited to what *we* can *conceive* of it. If you do not understand the operations of your own finite mind—that thinking thing within you—do not deem it strange that you cannot comprehend the operations of that Eternal, Infinite Mind who made and governs all things, and whom "The Heaven of Heavens cannot contain."

◆

CHAPTER XI.

OF OUR KNOWLEDGE OF THE EXISTENCE OF OTHER THINGS.

It is to be had only by sensation.—The Knowledge of our own 'being' we have by *intuition*. The existence of a GOD Reason clearly makes known to us, as has been shown.

The Knowledge of the existence of any other thing we can have only by *sensation:* for, there being no necessary connexion of real existence with any *idea* [that] a man has in his memory, nor of any other existence but that of God with the existence of any particular man, no particular man can *know* the existence of any other 'being,' but only when by actually operating upon him it makes itself *perceived* by him. For, the having the *idea* of any thing in our mind no more proves the *existence* of that thing, than the picture of a man evidences his being in the world, or the visions of a dream make thereby a true history.

Instance, whiteness of this paper.—It is therefore the *actual receiving* of ideas from without that gives us notice of the existence of other things, and makes us know that something do[es] exist at that time *without* us which causes that idea *in* us, though perhaps we neither know nor consider *how* it does it: for, it takes not from the *certainty* of our senses, and [of] the *ideas* we receive by them, that we know not the *manner* wherein they are produced; v. g. whilst I write this, I have, by the paper affecting my eyes, that idea produced in my mind which, whatever object causes [it], I call 'white;' by which I know that that quality or accident (i. e. whose *appearance* before my eyes always causes that *idea*) do[es] really exist and has a being *without* me. And of this the greatest assurance I can possibly have, and to which my faculties can attain, is the *testimony* of my eyes, which are the proper and sole judges of this thing; whose testimony I have reason to rely on as so certain that I can no more doubt, whilst I write this, that I *see* white and black, and that something *really exists* that causes that sensation in me, than that I write or move my hand; which is a certainty as great as human nature is capable of concerning the existence of any thing but [of] a man's self alone, and of GOD.

This, though not so certain as demonstration, yet may be called 'knowledge,' and proves the existence of things without us.—The notice we have by our senses of the existing of things without us, though it be not altogether so certain as our Intuitive Knowledge, or [as] the deductions of our Reason employed about the clear abstract ideas of our own minds; yet it is an *assurance* that deserves the name of Knowledge. If we persuade ourselves that our faculties act and inform us right concerning the existence of those objects that affect them, it cannot pass for an ill-grounded confidence: for, I think nobody can, in earnest, be so sceptical as to be uncertain of the existence of those things which he sees and feels. But, besides the assurance we have from our senses themselves, that they do not err in the information they give us of the existence of things without us, when they are affected by them, we are farther confirmed in this assurance by other concurrent reasons.

Because we cannot have them but by the inlet of the senses.—*First*, It is plain those perceptions are produced in us by exterior causes affecting our senses, because—those that *want* the organs of any sense never can have the ideas belonging to *that* sense produced in their minds. This is too evident to be doubted; and therefore we cannot but be assured that they *come in* by the organs of that sense, and no other way. The organs *themselves*, it is plain, do not produce them; for then the eyes of a man in the dark would produce colours, and his nose smell roses in the winter: but we see nobody gets the relish of a pine-apple till he tastes it.

Because an idea from actual sensation and another from memory are very distinct perceptions.—*Secondly*, Because sometimes I find that I *cannot avoid* having those ideas produced in my mind: for [as] when my eyes are shut, or windows fast, I can at pleasure recall to my mind the ideas of light or the sun, which former sensations had lodged in my memory; so I can at pleasure *lay by* that idea, and take into my view that of the smell of a rose, or taste of sugar. But if I turn my eyes at noon towards the sun, I cannot avoid the ideas which the light or sun then produces in me. So that there is a manifest difference between the ideas laid up in my memory (over which, if they were there only, I should have constantly the same power to dispose of them, and lay them by at pleasure), and those which force themselves upon me and [which] I cannot avoid having. And therefore it must needs be *some exterior cause*, and the brisk acting of some objects without me, whose efficacy I cannot resist, that produces those ideas in my mind, whether I will or not. Besides, there is nobody who do[es] not perceive the difference in himself between contemplating the sun as he has the idea of it in his memory, and actually looking upon it: of which two his perception is so distinct, that few of his ideas are *more distinguishable* one from another: and therefore he has *certain* Knowledge that they are not both memory, or the actions of his mind and fancies only within him; but that *actual* seeing has a cause *without*.

Pleasure or pain, which accompanies actual sensation, accompanies not the returning of those ideas without the external objects.—*Thirdly*, Add to this, that many of those ideas are produced in us with *pain*, which afterwards we remember without the least offence. Thus the pain of heat or cold, when the idea of it is revived in our minds, gives us no disturbance; which, when felt, was very troublesome, and is again [so] when *actually* repeated: which is occasioned by the disorder [that] the external object causes in our bodies when applied to it. And we remember the pain of hunger, thirst, or the headach, without any pain at all; which would either never disturb us, or else constantly do it as often as we thought of it, were there nothing more but ideas floating in our minds, and appearances entertaining our fancies, without the real existence of things affecting us from abroad. The same may be said of *pleasure* accompanying several actual sensations: and though mathematical demonstrations depend not upon sense, yet the examining them by diagrams gives great credit to the evidence of our sight, and seems to give it a certainty approaching to that of demonstration itself. For, it would be very strange that a man should allow it for an undeniable truth, that two angles of a figure which he measures by lines and angles of a diagram, should be bigger one than the other, and yet doubt of the existence of those lines and angles which, by looking on, he makes use of to measure that by.

Our senses assist one another's testimony of the existence of outward things.—*Fourthly*, Our senses in many cases, bear witness to the truth of *each other's* report concerning the existence of sensible things without us. He that sees a fire may, if he doubt whether it be any thing more than a bare fancy, feel it too, and be convinced by putting his hand in it; which certainly could never be put into such exquisite pain by a bare idea or phantom, unless that the pain be a fancy too: which yet he cannot, when the burn is well, by raising the idea of it, bring upon himself again.

Thus I see, whilst I write this, [that] I can change the appearance of the paper; and, by designing the letters, tell beforehand what new idea it shall exhibit the very next moment, barely by drawing my pen over it; which will appear neither (let me *fancy* as much as I will) if my hand stand still; [n]or (though I move my pen), if my eyes be shut: nor, when those characters are once made on the paper, can I choose afterwards but see them as they are; that is, have the ideas of such letters as I have made. To which if we will add, that the *sight* of those shall from another man draw such *sounds* as I beforehand design they shall stand for, there will be little reason left to doubt that those words [which] I write do really exist without me, when they cause a long series of regular sounds to affect my ears, which could not be the effect of my imagination, nor could my memory retain them in that order.

This certainty is as great as our condition needs.—But yet, if after all this any one will be so sceptical as to distrust his senses, and to affirm that all we see and hear, feel and taste, think and do, during our whole being, is but the series and deluding appearance of a long *dream* whereof there is no reality—and therefore will question the existence of all things, or our *knowledge* of any thing—I must desire him to consider, that if all be a dream, then he do[es] but dream that he makes the question; and so it is not much matter that a waking man should answer him. But yet, if he pleases, he may dream that I make him this answer—that the *certainty* of things existing in *rerum natura*, when we have the testimony of our senses for it, is not only as great as [1.] our frame *can attain* to, but [2.] as our condition *needs*. For, our faculties being suited—not to the full extent of 'being,' nor to a perfect, clear, comprehensive Knowledge of things, free from all doubt and scruple, but—to the preservation of us in whom they are, and [being] accommodated to the use of life, they serve our purpose well enough, if they will but give us certain notice of those things which are convenient or inconvenient to us: which is assurance enough, when no man requires greater certainty to govern his actions by, than what is as certain as his actions themselves. So that this evidence is as great as we can desire, being as certain to us as our pleasure or pain, i. e. happiness or misery; beyond which we have no concern either of knowing or being.

But reaches no farther than actual sensation.—But this knowledge extends as far as the *present* testimony of our senses, employed about particular objects that do then affect them, *and no farther.* For if I *saw* such a collection of simple ideas as is wont to be called 'man' existing together one minute since, and am now alone, I cannot *be certain* that the same man exists *now*, since there is no *necessary connexion* of his existence a minute since with his existence now: by a thousand ways he may cease to be since I had the testimony of my senses for his existence. And if I cannot be certain that the man I saw last to-day is now in being, I can less be certain that he is so who has been longer removed from my senses, and [whom] I have not seen since yesterday, or since the last year; and much less can I be certain of the existence of men that I never saw. And therefore, though it be highly probable that millions of men do now exist, yet, whilst I am alone writing this, I have not that *certainty* of it which we strictly call 'Knowledge;' though the great *likelihood* of it puts me past *doubt*, and it be reasonable for me to do several things upon the *confidence* that there are men (and men also of my acquaintance, with whom I have to do) now in the world: but this is but Probability, not Knowledge.

Folly to expect demonstration in every thing.—Whereby yet we may observe how foolish and vain a thing it is for a man of a narrow Knowledge, who having *Reason* given him to judge of the different evidence and probability of things, and to be swayed accordingly—how vain, I say, it is to expect demonstration and certainty in things not capable of it, and refuse assent to very rational propositions, and act contrary to very plain and clear truths, because they cannot be made out so evident as to surmount *every*—the least—(I will not say *reason*, but) *pretence* of doubting. He that in the ordinary affairs of life would admit of nothing but direct plain demonstration, would be sure of nothing in this world but—of perishing quickly. The wholesomeness of his meat or drink would not give him 'reason' to venture on it: and I would fain know what it is he could do upon such grounds as were capable of *no* doubt—*no* objection.

Past existence is known by memory.—As, when our Senses are actually employed about any object, we *know* that it does exist, so by our Memory we may be assured that heretofore things that affected our senses have existed. And thus we have knowledge of the *past existence* of several things, whereof our senses having informed us, our memories still retain the ideas; and of this we are past all doubt *so long as we remember well.* But this knowledge also reaches no farther than our senses have formerly assured us.

The existence of spirits not knowable.—What ideas we have of Spirits, and how we come by them, I have already shown. But though we have those ideas in our minds, and know we have them there, the having the *ideas* of spirits does not make us *know* that any such things *do exist* without us, or that there are any finite spirits, or any other spiritual beings but the Eternal God. We have *ground* from Revelation, and several other reasons, *to believe with assurance* that there are such creatures; but, our senses not being able to discover them, we want the means of *knowing* their *particular* existences. For we can no more know that there are finite spirits really existing by the idea we have of such beings in our minds, than by the ideas any one has of iries or centaurs he can come to know that things wering those ideas do really exist.

And therefore concerning the existence of finite Spirits, as well as [of] several other things, we must content ourselves with the evidence of Faith; but Universal *certain* Propositions concerning this matter are beyond our reach. For, however true it may be, v. g. that all the intelligent spirits that God ever created do still exist, yet it can never make a part of our certain Knowledge. We are not, then, to put others upon demonstrating, nor ourselves upon search of, universal certainty in all those matters wherein we are not capable of any other Knowledge but what our senses give us in this or that *particular*.

Particular propositions concerning existences are knowable.—By which it appears that there are two sorts of Propositions. (1). There is one sort concerning the *existence* of any thing answerable to such an idea; as having the idea of an 'elephant,' 'phœnix,' 'motion,' or an 'angel'* in my mind, the first and natural inquiry is,—whether such a thing *does anywhere* exist. And this Knowledge is only of particulars. No existence of any thing without us,—but only of God—can certainly be known farther than our senses inform us. (2). There is another sort of propositions, wherein is expressed—the agreement or disagreement of our Abstract *ideas* and their dependence one on another. Such propositions may be [1.] universal and [2.] certain. So having the idea of God and myself, of fear and obedience, I cannot but be sure that God is to be feared and obeyed by me: and this proposition will be certain concerning man in general, if I have made an Abstract idea of such a *species*, whereof I am one particular. But yet this proposition, how certain soever, that men ought to fear and obey GOD, *proves not* to me the *existence* of men in the world, but will be true of all such creatures *whenever they do exist:* which certainty of such general propositions depends on the agreement or disagreement to be discovered in those Abstract ideas.

---

* Another reading is 'angle,' which is probably wrong.—Ed.

And general propositions concerning abstract ideas.—In the former case, our Knowledge is *the consequence of the existence* of things producing ideas in our minds by our senses: in the latter, Knowledge is *the consequence of the ideas* (be they what they will) that are in our minds, producing there general certain propositions. Many of these are called *æternæ veritates;* and all of them indeed *are* so: not from being written, all or any of them, in the minds of all men, or that they were any of them propositions in any one's mind, till he, having got the Abstract ideas, joined or separated them by affirmation or negation. But wheresoever we can suppose such a creature as man is, endowed with such faculties, and thereby furnished with such ideas, as we have, we must conclude he must needs, when he applies his thoughts to the consideration of his ideas, know the truth of certain propositions that will arise from the agreement or disagreement which he will perceive in his own ideas. Such propositions are therefore called 'eternal truths,' not because they are *eternal propositions* actually formed, and antecedent to the Understanding that at any time makes them; nor because they are imprinted on the mind from any patterns that are anywhere of them *out* of the mind, and existed before; but because, *being once made about Abstract* ideas so as to be true, *they will*, whenever they can be supposed to be made again, at any time past or to come, by a mind having those ideas, *always actually be true.* For, Names being supposed to stand perpetually for the same ideas, and the same ideas having immutably the same habitudes one to another, propositions concerning any Abstract ideas that are *once* true must needs be *eternal* verities.

◆

CHAPTER XII.*

OF THE IMPROVEMENT OF OUR KNOWLEDGE.

Knowledge is not from maxims.—It having been the common received opinion amongst men of letters, that Maxims were the foundation of all Knowledge; and that the sciences were each of them built upon certain *præcognita*, these doctrines thus laid down for foundations of any science were called 'principles,' as the *beginnings* from which we must set out, and look no farther backwards in our inquiries, as we have already observed.

(*The occasion of that opinion.*)—One thing which might probably give an occasion to this way of proceeding in other sciences was, as I suppose, the good success it seemed to have in Mathematics, wherein men being observed to attain a great *certainty* of Knowledge, these sciences came by pre-eminence to be called *μαθήματα*, and *μάθησις*—'learning,' or 'things learned'—*thoroughly* 'learned,' as having, of all others, the greatest certainty, clearness, and evidence in them.

---

* Almost the whole of the twelfth Chapter is recapitulation. But as it is a good practical summing up, the amount of matter is not here reduced by more than about one-fourth.—Ed.

But from comparing clear and distinct ideas.*—But if any one will consider, he will find that the great advancement and certainty of Real Knowledge, which men arrived to in these sciences, was not owing to the influence of these 'principles,' nor derived from any peculiar advantage they received from two or three general Maxims laid down in the beginning; but from the *clear*, *distinct*, *complete* ideas [which] their thoughts were employed about, and the relation of equality and excess so clear between some of them, that they had an Intuitive Knowledge, and by that a way to discover it in others, and this without the help of those Maxims. These general rules are but *the comparing* our more general and Abstract ideas, which are the workmanship of the mind—made, and [having] names given to them, for the easier despatch in its reasonings—and drawing into *comprehensive* terms and short rules its various and multiplied observations. But Knowledge *began* in the mind: and was *founded on particulars*, though afterwards, perhaps, no notice be taken thereof; it being natural for the mind (forward still to enlarge its knowledge) most attentively to lay up those general notions, and make *the proper use* of them, which is—to disburthen the memory of the cumbersome load of *particulars.*

---

* The word '*principles*' is sometimes found here, as the noun joined with '*clear*.'—Ed.

Dangerous to build upon precarious principles.—That which I have here to do is—to inquire whether, [even] if it be [granted that] the readiest way to knowledge [is] to begin with general Maxims and build upon them, it be yet a safe way to take the 'principles' which are laid down in any other science as *unquestionable truths;* and so receive them without examination, and adhere to them without suffering [them] to be doubted, because *mathematicians* have been so happy, or so fair, [as] to use none but self-evident and undeniable. If this be so, I know not what may not pass for *truth* in Morality—what may not be introduced and proved in Natural Philosophy.

Let any one (with Polemo) take the world—or (with the Stoics) the æther or the sun—or (with Anaximenes) the air—to be God, and what a divinity, religion, and worship must we needs have! Nothing can be so dangerous as principles thus taken up without questioning or examination: especially if they be such as concern morality; which influence* men's lives, and give* a bias to all their actions. Who might not justly expect another kind of life in Aristippus, who placed happiness in 'bodily pleasure,' [than] in Antisthenes, who made 'virtue' sufficient to felicity? And he, who, with Plato, shall place beatitude in 'the knowledge of

---

* The readings here are indifferently 'influence' and 'influences, 'give' and 'gives.' The *argument,* however, seems to be more assisted by referring the verbal-notion to 'principles' than to 'morality:' and the punctuation is adjusted accordingly.—ED.

God,' will have his thoughts raised to other contemplations than those who look not beyond this spot of earth, and those perishing things which are to be had in it. He that, with Archelaus, shall lay it down as a principle, that 'right and wrong, honest and dishonest, are defined only by laws, and not by nature,' will have other measures of moral rectitude and pravity than those who take it for granted that 'we are under obligations antecedent to all human constitutions.'

This is no certain way to truth.—If therefore those that pass for 'principles' are not certain (which we must have some way *to know*, that we may able to distinguish them from those that are doubtful), but are only made so to us by *our blind assent*, we are liable to be misled by them; and, instead of being guided into truth, we shall, by 'principles,' be only confirmed in mistake and error.

But to compare clear, complete ideas under steady names.—But since the knowledge of the certainty of 'principles,' as well as of all other truths, depends only upon the *perception* we have of the agreement or disagreement of our ideas, the way to improve our Knowledge is not, I am sure, blindly, and with an implicit faith, to receive and swallow 'principles;' but is, I think—[1.] *to get and fix in our minds clear, distinct, and complete ideas*, as far as they are to be had, *and annex to them proper and constant Names.* And thus, perhaps, without any other 'principles,' but barely considering those ideas, and by comparing them one with another, finding their agreement and disagreement, and their several relations and habitudes, [i. e. chiefly by studying [2.]

to discover proofs[*]] we shall get more true and clear Knowledge by the conduct of this one rule, than by *taking up* 'principles,' and thereby putting our minds [at] the disposal of others.

The true method of advancing knowledge is, by considering our abstract ideas.—We must therefore, if we will proceed as Reason advises, adapt our methods of inquiry to the nature of the ideas we examine, and the truth we search after. *General and certain Truths are only founded in the habitudes and relations of Abstract ideas.* A sagacious and methodical application of our thoughts, for the finding out these Relations, is the only way to discover all that can be put, with truth and certainty, concerning them, into General Propositions. By what steps we are to proceed in these is to be learned *in the schools of the mathematicians*, who, from very plain and easy beginnings, by gentle degrees, and a continued chain of reasonings, proceed to the discovery and demonstration of truths that appear at first sight beyond human capacity. The art of finding proofs, and the admirable methods they have invented for the singling out and laying in order those intermediate ideas that demonstratively show the equality or inequality of *inapplicable* quantities is that which has carried them so far, and produced such wonderful and unexpected discoveries: but whether something like this, in respect of other ideas, as well as those of magnitude, may not in time be found out, I will not determine. This, I think I may say—that if other ideas, that are the Real as well as Nominal Essences of their

---

[*] See page 309.

species, were pursued in the way familiar to mathematicians, they would carry our thoughts farther, and with greater evidence and clearness, than possibly we are apt to imagine.

By which morality also may be made clearer.—This gave me the confidence to advance that conjecture which I suggest, Chap. III., viz.—that Morality is capable of *demonstration* as well as Mathematics. For the ideas that Ethics are conversant about being all Real Essences, and such as, I imagine, have *a discoverable connexion* and agreement one with another, so far as we can find their habitudes and relations, so far we shall be possessed of *certain*, *real*, and *general* Truths; and I doubt not but, if a right method were taken, a great part of Morality might be made out with that clearness that could leave, to a considering man, no more reason to doubt than he could have to doubt of the truth of propositions in Mathematics, which have been demonstrated to him.

But knowledge of bodies is to be improved only by experience.—In our search after the Knowledge of Substances, our want of ideas that are suitable to such a way of proceeding obliges us to take quite a *contrary* course; the want of ideas of their Real Essences sends us from *our own thoughts* to the *things themselves* as they exist. Experience here must teach me what Reason cannot: and it is by *trying* alone that I can *certainly* know what other qualities co-exist with those of my complex idea, v. g. whether that yellow, heavy, fusible body I call 'gold' be malleable or no; about which, experience ([what-]ever it prove in that particular body [which]

I examine) makes me not *certain* that it is so in *all* or *any* other yellow, heavy, fusible bodies, but that which I have tried.

This may procure us convenience, not science.—I deny not but a man accustomed to rational and regular *experiments* shall be able to see farther into the nature of bodies, and guess [more rightly] at their yet unknown properties, than one that is a stranger to them: but yet, as I have said, this is but Judgment and *opinion*, not Knowledge and *certainty.* This way of getting and improving our Knowledge in Substances only by *experience* and *history*—which is all that the weakness of our faculties, in this state of mediocrity in which we are in this world, can attain to—makes me suspect that Natural Philosophy is not capable of being made *a science.* We are able, I imagine, to reach very little *general* Knowledge concerning the *species* of bodies and their several properties. Experiments and historical observations we may have, from which we may draw advantages of ease and health, and thereby increase our stock of conveniences for this life; but beyond this I fear our talents reach not, nor are our faculties, as I guess, able to advance.

We are fitted for moral knowledge and natural improvements.—From whence it is obvious to conclude, that since our faculties are not fitted to penetrate into the internal fabric and Real Essences of bodies, but yet plainly discover to us the being of a God, and the Knowledge of *ourselves*—enough to lead us into a full and clear discovery of our duty and great concernment —it will become us, as rational creatures, to employ those faculties we have, about what they are most adapted to, and follow the direction of nature, where it seems to point us out the way. For it is rational to conclude that our proper employment lies in those inquiries, and in that sort of Knowledge *which is most suited to our natural capacities*, and carries in it our *greatest* interest, i. e. the condition of our eternal estate. Hence I think I may conclude—that Morality is *the proper science and business of mankind in general* (who are both concerned, and fitted, to search out their *summum bonum*), [in like manner] as several *arts*, conversant about several parts of nature, are the lot and private talent of *particular* men, for the common use of human life, and their own particular subsistence in this world. Of what consequence the discovery of *one natural body* and its properties may be to human life, the whole great continent of America is a convincing instance; whose ignorance in useful arts, and want of the greatest part of the conveniences of life, in a country that abounded with all sorts of natural plenty, I think, may be attributed to their ignorance of what was to be found in a very ordinary despicable stone—I mean *the mineral of iron.* And whatever we think of our parts or improvements in this part of the world, where knowledge and plenty seem to vie each with other, yet to any one that will seriously reflect on it, I suppose it will appear past doubt that, were the use of iron lost among us, we should in a few ages be unavoidably reduced to the wants and ignorance of the ancient savage Americans, whose natural endowments and provisions came no way short of those of the most flourish-ing and polite nations: so that he who first made known the use of that one contemptible mineral may be truly styled—'the father of arts and author of plenty.'

But must beware of hypotheses and wrong principles.—I would not therefore be thought to disesteem, or dissuade from, the study of nature. I readily agree, the contemplation of His works gives us occasion to admire, revere, and glorify their Author; and, if rightly directed, may be of greater benefit to mankind than the monuments of exemplary charity that have, at so great charge, been raised by the founders of hospitals and alms-houses. He that first invented *printing*, discovered the use of the *compass*, or made public the virtue and right use of *kinkina*, did more for the propagation of Knowledge, for the supplying and increase of useful commodities, and saved more from the grave, than those who built colleges, work-houses, and hospitals. All that I would say is—that the Knowledge of *bodies* we must get by our *senses*, warily employed in taking notice of their qualities and operations on one another: and what we hope to *know* of separate Spirits in this world, we must, I think, expect only from Revelation. He that shall consider how little general Maxims, precarious 'principles,' and hypotheses laid down at pleasure, have promoted true Knowledge, or helped to satisfy the inquiries of rational men after real improvements—how little I say, the setting out *at that end* has for many ages together advanced men's progress towards the knowledge of Natural Philosophy; will think, we have reason to thank those who, in this latter age, have taken another course, and have trodden out to us, though not an easier way to learned ignorance, yet a surer way to profitable knowledge.

The true use of hypotheses.—Not that we may not, to explain any phenomena of nature, make use of any probable *hypothesis* whatsoever. Hypotheses, if they are well made, [1.] are great helps to the Memory, and [2.] often direct us to new discoveries. But my meaning is, that we should not take up any one too hastily (which the mind, that would always penetrate into the causes of things and have principles to rest on, is very apt to do), till we have *very well examined particulars*, and made several *experiments* in that thing which we would explain by our *hypothesis*, and see whether it will agree to them *all;* whether our 'principles' will carry us *quite through*, and not be as inconsistent with one phenomenon of nature as they seem to accommodate and explain another; and, at least, that we take care that the name of 'principles' deceive us not, nor impose on us by making us receive that for an unquestionable truth which is really, at best, but a very doubtful conjecture; such as are most (I had almost said all) of the *hypotheses* in Natural Philosophy.

Clear and distinct ideas with settled names, and the finding of those which show their agreement or disagreement, are the ways to enlarge our knowledge.—But whether Natural Philosophy be capable of *certainty* or not, the ways to enlarge our Knowledge, as far as we are capable, seem to me, in short, to be these two:

The *First* is—to *get* and *settle* in our minds *determined ideas* of those things whereof we have *general* or *specific* Names; at least of so many of them as we would consider and improve our Knowledge in, or reason about. And if they be specific ideas of Substances, we should endeavour also to make them as *complete* as we can ; whereby I mean that we should put together as many simple ideas as, being constantly observed to co-exist, may perfectly determine the *species ;* and *each of those simple* ideas, which are the ingredients of our complex ones, should be clear and distinct in our minds : for it being evident that our Knowledge cannot exceed our Ideas, as far as they are either imperfect, confused, or obscure, we cannot expect to have certain, perfect, or clear Knowledge.

Secondly, The other is the art of finding out those *intermediate ideas*, [or 'proofs'] which may show us the agreement or repugnancy of other ideas, which cannot be immediately compared.

Mathematics an instance of it.—That these two (and not the relying on Maxims, and drawing consequences from some *general* propositions) are the right methods of improving our Knowledge in the ideas of other Modes, besides those of quantity, the consideration of Mathematical Knowledge will easily inform us. Where, *first*, we shall find that he that has not a perfect and clear idea of those angles or figures of which he desires to know anything, is utterly thereby incapable of any knowledge about them. Farther [*secondly*], it is evident, that *it was not* the influence of those Maxims which are taken for 'principles' in Mathematics, that led the masters of that science into those wonderful discoveries [that] they have made. Let a man of good parts know all the Maxims generally made use of in

Mathematics ever so perfectly, and contemplate their extent and consequences as much as he pleases; he will, by their assistance, I suppose, scarcely ever come to know that the square of the hypotenuse in a right-angled triangle is equal to the squares of the two other sides. The knowledge that 'the whole is equal to all its parts,' and 'if you take equals from equals, the remainder[s] will be equal,' &c., helped him not, I presume, to this *demonstration*: and a man may, I think, pore long enough on those axioms without ever seeing one jot the more of Mathematical Truths.

◆

CHAPTER XIII.*

SOME FARTHER CONSIDERATIONS CONCERNING OUR KNOWLEDGE.

1. *Our knowledge partly necessary, partly voluntary.*—Our Knowledge, as in other things, so in this, has so great a conformity with our *sight*, that it is neither wholly *necessary*, nor wholly voluntary. If our Knowledge were altogether necessary, all men's knowledge would not only be alike, but every man would know all that is knowable; and if it were wholly voluntary, some men so little regard or value it, that they would have extremely little, or none at all. Men that have Senses *cannot choose but receive* some ideas by them; and if they

---

* This Chapter is properly a corollary easily deducible from the principles laid down in previous Chapters, and closes one department of the Fourth Book.—Ed.

have Memory, *they cannot but retain* some of them; and if they have any *distinguishing* faculty, *cannot but perceive* the agreement or disagreement of some of them one with another; as he that has eyes, if he will open them by day, cannot but see some objects, and perceive a difference in them. But though a man with his eyes open in the light cannot but see, yet [1.] there [are] certain objects which he may *choose* whether he will turn his eyes to; there may be in his reach a book containing pictures and discourses, capable to delight and instruct him, which yet he may never have *the will* to open, never take the pains to look into.

The application voluntary; but we know as things are, not as we please.—There is also another thing in a man's power; and that is, though he turns his eyes sometimes towards an object, yet [2.] he may choose whether he will curiously survey it, and with an intent application endeavour *to observe accurately* all that is visible in it. But yet what he does see, he cannot see otherwise than he does. It depends not on his will to see that black which appears yellow; nor to persuade himself that what actually scalds him feels cold: the earth will not appear painted with flowers, nor the fields covered with verdure, whenever he has a mind to it: in the cold winter he cannot help seeing it white and hoary, if he will look abroad. Just thus is it with our Understanding; all that is voluntary in our Knowlege is—the employing or withholding any of our faculties from this or that sort of objects, and a more or less accurate survey of them: but, they being employed, our Will has no power *to determine* the Knowledge of the mind one way or other; that is done only by the objects themselves, as far as they are clearly discovered. And therefore, as far as men's senses are conversant about external objects, the mind cannot but receive those ideas which are presented by them, and be informed of the existence of things without: and so far as men's thoughts converse with their own determined ideas, they cannot but in some measure observe the agreement or disagreement that is to be found amongst some of them; which is so far Knowledge: and if they have Names for those ideas which they have thus considered, they must needs be assured of the *truth* of those Propositions which express that agreement or disagreement [which] they perceive in them, and be undoubtedly convinced of those truths. For what a man sees he cannot but see; and what he perceives he cannot but know that he perceives.

Instance in numbers.—Thus he that has got the ideas of numbers, and has taken the pains to compare *one, two*, and *three*, to *six*, cannot choose but know that they are equal. He that has got the idea of a triangle, and found the ways to measure its angles and their magnitudes, is certain that its three angles are equal to two right ones: and can as little doubt of that as of this truth, that 'it is impossible for the same thing to be and not to be.'

In natural religion.—He also that has the idea of an intelligent but frail and weak being, made by, and depending on, another who is Eternal, Omnipotent, perfectly Wise and Good, will as certainly know that man is to honour, fear, and obey GOD, as that the sun shines when he sees it. For if he has but the ideas of two such beings in his mind, and will turn his thoughts that way and consider them, he will as certainly find that the inferior, finite, and dependent is under an obligation to obey the Supreme and Infinite, as he is certain to find that *three*, *four*, and *seven*, are less than *fifteen*, if he will consider and compute those numbers; nor can he be surer in a clear morning that the sun is risen, if he will but open his eyes and turn them that way. But yet, these truths being ever so certain, ever so clear, he may be ignorant of [any] or all of them, who will never take the pains to employ his faculties, as he should, to inform himself about them.

CHAPTER XIV.

OF JUDGMENT.

Our knowledge being short, we want something else.—The understanding faculties being given to man, not barely for speculation, but also for the conduct of his life, man would be at a great loss if he had nothing to direct him but what was the certainty of true Knowledge. For, that being very short and scanty, as we have seen, he would be often utterly in the dark, and in most of the actions of his life perfectly at a stand, had he nothing to guide him in the absence of clear and certain Knowledge. He that will not eat till he has demonstration that [food] will nourish him, he that will not stir till he infallibly knows [that] the business he goes about will succeed, will have little else to do but to sit still and perish.

What use to be made of this twilight state.—Therefore, as God has set some things in broad daylight, as he has given us some certain Knowledge (though limited to a very few things in comparison)—probably as a taste of what intellectual creatures are capable of, to excite in us a desire and endeavour after a better state—so, in the greatest part of our concerns, he has afforded us only the twilight, as I may so say, of Probability, suitable, I presume, to that state of mediocrity and probationership in [which] he has been pleased to place us here; wherein—to check our over-confidence and presumption—we might, by every day's experience, be made sensible of our short-sightedness and liab[ility] to error; the sense whereof might be a constant admonition to us to spend the days of this our pilgrimage with industry and care in the search and following of that way which might lead us to a state of greater perfection; it being highly rational to think, even were Revelation silent in the case, that as men employ those talents [which] God has given them here, they shall accordingly receive their rewards at the close of the day, when their sun shall set, and night shall put an end to their labours.

Judgment supplies the want of knowledge.—The faculty which God has given man to supply the want of clear and certain Knowledge, in cases where that cannot be had, is—Judgment: whereby the mind *takes* its ideas to agree or disagree, or (which is the same), any proposition to be true or false, without perceiving a *demonstrative* evidence in the proofs. The mind sometimes exercises this Judgment out of necessity, where demonstrative proofs and certain Knowledge are not to be had; and sometimes out of laziness and unskilfulness, or haste, even where demonstrative and certain proofs are to be had. Men often stay not warily to examine the agreement or disagreement of two ideas, which they are desirous or concerned to know; but, either incapable of such attention as is requisite in a long train of gradations, or impatient of delay, lightly cast their eyes on, or wholly pass by, the proofs; and so, without making out the demonstration, determine of the agreement or disagreement of two ideas, as it were, by a view of them as they are at a distance, and take it to be the one or the other as seems most likely to them upon such a loose survey. This faculty of the mind, when it is exercised immediately about things, is called Judgment; when about truths delivered in words, is most commonly called Assent or Dissent: which being the most usual way wherein the mind has occasion to employ this faculty, I shall, under these terms, treat of it as least liable in our language to equivocation.

Judgment is the presuming things to be so without perceiving it.—Thus the mind has two faculties conversant about Truth and Falsehood.

First, Knowledge—whereby it *certainly perceives,* and is undoubtedly satisfied of, the agreement or disagreement of any ideas.

Secondly, Judgment, which is—The putting ideas together, or separating them from one another in the mind, when their *certain* agreement or disagreement is not perceived, but *presumed* to be so; which is, as the word imports, *taken* to be so before it *certainly appears.* And if it *so* unites or separates them *as in reality* things are, it is—Right Judgment.

CHAPTER XV.

OF PROBABILITY.

Probability is the appearance of agreement upon fallible proofs.—As Demonstration is—*The showing* [of] the agreement or disagreement of two ideas by the intervention of one or more proofs which have a constant, immutable, and visible connexion one with another, so Probability is nothing but—*The appearance* of such an agreement or disagreement by the intervention of proofs whose connexion is not constant and immutable, or at least is not perceived to be so; but [which] is, or appears for the most part to be so, and is enough to induce the mind to judge the proposition to be true or false, *rather than the contrary.* For example: In the demonstration of it, a man perceives the certain immutable connexion there is of equality between the three angles of a triangle, and those intermediate ones which are made use of to show their equality to two right ones; and so, by an Intuitive Knowledge of the agreement or disagreement of the intermediate ideas *in each step* of the progress, the whole series is continued with an evidence which clearly shows the agreement or disagreement of those three angles in equality to two right ones: and thus he has certain Knowledge that it is so. But another man, who never took the pains to observe the demonstration, hearing a mathematician, a man of credit, *affirm* 'the three angles of a triangle to be equal to two right ones,' *assents* to it, i. e. *receives* it for true. In which case the foundation of his assent is the Probability of the thing; the proof being such as for the most part carries truth with it: the man on whose testimony he receives it not being wont to affirm anything contrary to or beside his knowledge, especially in matters of this kind. So that that which causes his assent to this proposition, that 'the three angles of a triangle are equal to two right ones,'—that which makes him *take* these ideas to agree *without knowing* them to do so—is the wonted veracity of the speaker in other cases; or his supposed veracity in this.

It is to supply the want of knowledge.—Our Knowledge, as has been shown, being very narrow, and we not [being] happy enough to find certain Truth in everything which we have occasion to consider, most of the propositions we think, reason, discourse, nay, act upon, are such [that] we cannot have undoubted Knowledge of their truth; yet some of them *border so near* upon certainty, that we make no doubt at all about them, but assent to them as firmly, and act according to that assent as resolutely, as if they were infallibly demonstrated, and that our knowledge of them was perfect and certain. But, there being degrees herein, from the very neighbourhood of certainty and demonstration, quite down to improbability and unlikeness, even to the confines of impossibility; and also degrees of assent from full assurance and confidence, quite down to conjecture, doubt, and distrust; I shall come now (having, as I think, found out the bounds of human Knowledge and *certainty*), in the next place, to consider the several degrees and grounds of Probability, and [of] Assent or Faith.

Being that which makes us presume things to be true before we know them to be so.—Probability is—Likeliness* to be true; the very notation of the word signifying such a proposition for which there [are] arguments or proofs to make it pass, or be received for true. The entertainment the mind gives this sort of propositions is called Belief, Assent, or Opinion, which is—The admitting or receiving any proposition for true, upon arguments or proofs that are found *to persuade* us to receive it as true, without certain Knowledge that it is so. And herein lies the difference between Probability and *certainty*—Faith and *knowledge*—that in all the parts of Knowledge there is *intuition;* each immediate idea—each step—has its visible and certain connexion: in Belief not so. That which makes me *believe*, is something *extraneous* to the thing I believe;—something not evidently joined on both sides to, and so not manifestly showing the agreement or disagreement of those ideas that are under consideration.

The grounds of probability are two: conformity with our own experience, [*and*] *the testimony of others' experience.*—The grounds of Probability are, in short, these two following:

First, The conformity of anything with our own Knowledge, Observation, and Experience.

Secondly, The Testimony of others, vouching *their* observation and experience. In the testimony of others [are] to be considered (1) the number, (2) the integrity, (3) the skill—of the witnesses: (4) the design of the author, where it is a testimony out of a book cited: (5) the consistency of the parts and circumstances of the relation: [and] (6) contrary testimonies.

---

* The reading 'likeness' is sometimes adopted: but 'likeness' is properly a *ground* of probability, and not probability itself.—Ed.

There is another which, though by itself it be no true ground of Probability, yet is often made use of for one, by which men most commonly regulate their Assent, and upon which they pin their faith more than [on] anything else, and that is [7.] The opinion of others: though there cannot be a more dangerous thing to rely on, or more likely to mislead one, since there is *much more* falsehood and error among men than Truth and Knowledge.

*All the arguments,** pro *and* con, *ought to be examined before we come to a judgment.*—The mind, if it would proceed rationally, ought to examine *all* the grounds of Probability, and see how they make more or less for or against any proposition, before it assents to, or dissents from, it; and, upon a due balancing the whole, reject or receive it with a more or less firm assent, proportionably to the preponderancy of the greater grounds of probability on one side or the other. For example:—

If I myself *see* a man walk on the ice, it is past *probability*—it is Knowledge. But if another tells me *he saw* a man in England, in the midst of a sharp winter, walk upon water, hardened with cold, this has so great conformity with what is *usually observed* to happen, that

---

* The 8vo. (stereotyped) edition commonly in use in this country, among its many inaccuracies, reads '*agreements*' here, which is absurd.—Ed.

I am *disposed*, by the nature of the thing itself, to assent to it, unless some manifest suspicion attend the relation of *that* matter of fact. But if the same thing be told to one born between the Tropics, who never saw or heard of any such thing before, *there* the *whole* probability relies on *testimony:* and [accordingly] as the relators are more in number, and of more credit, and have no interest to speak contrary to the truth, so that matter of fact is like to find more or less belief; though to a man whose experience has been always quite contrary, and who has never heard of anything like it, the most untainted credit of a witness will scarcely be able to find belief: as it happened to a Dutch ambassador, who, entertaining the King of Siam with the particularities of Holland which he was inquisitive after, amongst other things, told him, 'that the water in *his* country would sometimes in cold weather be so hard that men walked upon it, and that it would bear an elephant, if he were there.' To which the King replied, 'Hitherto I have believed the strange things you have told me, because I look[ed] upon you as a sober, fair man; but now I am sure you lie.'

They being capable of great variety.—Upon these grounds depends the Probability of any proposition: and as the conformity of our Knowledge, as the certainty of our observations, as the frequency and constancy of experience, and the number and credibility of testimonies, do more or less agree or disagree with it, so is any proposition in itself more or less *probable.*

CHAPTER XVI.

OF THE DEGREES OF ASSENT.

Our assent ought to be regulated by the grounds of probability.—The grounds of Probability, as they are the *foundations* on which our Assent is built, so are they also the *measure* whereby its several Degrees are or ought to be regulated: only we are to take notice, that whatever grounds of Probability there may be, they yet operate no further on the mind which searches after Truth and endeavours to judge right, than [as] they *appear;* at least in the first judgment or search that the mind makes. I confess, in the opinions men have and firmly stick to in the world, their Assent is not always from an *actual* view of the *reasons* that at first prevailed with them; it being in many cases almost impossible, and in most very hard, even for those who have very admirable memories, to retain all the *proofs* which upon a due examination made them embrace that side of the question. It suffices that they have *once* with care and fairness sifted the matter as far as they could; and that they have searched into all the particulars that they could imagine to give any light to the question, and with the best of their skill cast up the account upon the whole evidence: and thus, having *once* found on which side the probability appeared to them, after as full and exact an inquiry as they can make, they lay up *the conclusion* in their memories as a truth [which] they have discovered; and for the future they remain satisfied with the testimony of their *memories* that this is the opinion that, by the proofs they have once seen of it, deserves such a degree of their Assent as they afford it.

Without this, the greatest part of men must be either very sceptics, or change every moment, and yield themselves up to [any one] who, having lately studied the question, offers them arguments, which, for want of memory, they are not able presently to answer.

The ill consequence of this if our former judgment were not rightly made.—I cannot but own that men's sticking to their past judgment, and adhering firmly to conclusions formerly made, is often the cause of great obstinacy in error and mistake. But the fault is—not that they rely on their memories for what they have before *well judged*, but—because they judged before they had *well examined;* which is indeed to *think* they judged right, because they never judged at all; and yet these, of all men, hold their opinions with the greatest stiffness: those being generally the most fierce and firm in their tenets who have least examined them.

Probability is either of matter of fact or speculation.—The Propositions we receive upon inducements of Probability are of two sorts; either [1.] concerning *some particular existence*, or, as it is usually termed,—'matter of *fact*,' which, falling under observation, is capable of human *testimony;* or else [2.] concerning things which, being *beyond the discovery of our senses*, are not capable of any such testimony [i. e. are 'matter of *speculation*'].

The concurrent experience of all other men with ours produces assurance approaching to knowledge.—Concerning the first of these, viz., *particular* matter of fact;

First, The *highest* Degree of Probability is—When the *general consent* of *all* men in *all* ages, as far as it can be known, concurs with a man's *constant* and *never-failing* experience in like cases, to confirm the truth of any particular matter of fact attested by fair witnesses. Such are all the stated constitutions and properties of bodies, and the regular proceedings of causes and effects in the ordinary course of nature. This we call—an Argument *from the nature of things themselves:* for what our own and other men's constant observation has found always to be after the same manner, *that* we with reason conclude to be the effect of *steady* and *regular* causes, though they come not within the reach of our Knowledge. Our Belief thus grounded rises to—*Assurance.*

Unquestionable testimony and experience for the most part produce confidence.—Secondly, The next Degree of Probability is,—When I find by my own experience, and the agreement of all others that mention it, a thing to be *for the most part* so; and that *the particular instance of it is attested* by many and undoubted witnesses:—v. g. History giving us such an account of men in all ages, and my own experience, as far as I had an opportunity to observe, confirming it, that 'most men prefer their private advantage to the public,' if all historians that write of Tiberius say, that Tiberius did so, it is extremely probable. And in this case, our Assent has a sufficient foundation to raise itself to a Degree which we may call—*Confidence.*

Fair testimony, and the nature of the thing [being] indifferent, produce also confident belief.—Thirdly, In things that happen indifferently,—when any *particular* matter of fact is vouched by the concurrent testimony of unsuspected witnesses, there our Assent is also unavoidable. Thus, 'that there is such a city in Italy as Rome; that about 1700 years ago there lived in it a man called Julius Cæsar; that he was a general, and that he won a battle against another called Pompey:' this, though *in the nature of the thing* there be nothing for or against it; yet being related by historians of credit, and contradicted by no one writer, a man *cannot avoid* believing it; and can as little doubt of it as he does of the being and actions of his own acquaintance, whereof he himself is a witness.

Experience and testimonies clashing infinitely vary the degrees of probability.—The difficulty is, when testimonies *contradict common experience*, and the reports of history and witnesses clash with *the ordinary course* of nature, or with one another; there it is where diligence, attention, and exactness are required to form a right Judgment, and to *proportion* the Assent to the different *evidence* and Probability of the thing, which rises and falls according as those *two foundations* of credibility, viz.—Common Observation *in like cases*, and Particular Testimonies *in that particular instance*—favour or contradict it; [and] so are fitted to produce in the mind such different entertainment as we call 'belief,' 'conjecture,' 'guess,' 'doubt,' 'wavering,' 'distrust,' 'disbelief,' &c.

Traditional testimonies, the farther removed, the less their proofs.—This is what concerns Assent in matters wherein *testimony* is made use of; concerning which, I think it may not be amiss to take notice of a rule observed in the law of England, which is, "that though the *attested* *copy* of a record be good *proof*, yet the *copy of a copy*, ever so well attested, and by ever so credible witnesses, will *not* be admitted as a *proof* in judicature." This practice, if it be allowable in the decisions of *right* and *wrong*, carries this observation along with it, viz.—that any testimony, *the farther off* it is from the *original* truth, the less force and proof it has. *The being and existence of the thing itself* is what I call 'the original truth.' A credible man vouching his knowledge of it is a good proof: but if another equally credible do witness it *from his* report, the testimony is weaker; and a third that attests *the hearsay of a hearsay*, is yet less considerable. So that, in traditional truths, each remove weakens the force of the proof; and the more hands the tradition has successively passed through, the less strength and evidence does it receive from them. This I thought necessary to be taken notice of, because I find amongst some men quite the contrary commonly practised, who look on opinions to gain force by growing older; and what a thousand years since would not, to a rational man, contemporary with the first voucher, have appeared at all *probable*, is now urged as *certain* beyond all question, only because several have since, from him, *said* it one after another. Upon this ground, propositions evidently false, or doubtful enough in their first beginning, come by *an inverted rule* of Probability to pass for authentic truths.

Yet history is of great use.—I would not be thought here to lessen the credit and use of History: it is all the light we have in many cases; and we receive from it a great part of the useful truths we have with a convincing evidence. I think nothing more valuable than the records of antiquity: I wish we had more of them, and more uncorrupted. But this truth itself forces me to say,—that no Probability can rise higher *than its first original;* [and] that what in one age was affirmed upon slight grounds can never after come to be *more valid* in future ages by being *often repeated.*

In things which sense cannot discover, analogy is the great rule of probability.—The Probabilities [that] we have hitherto mentioned are only such as concern *matter of fact*, and such things as are capable of *observation* and *testimony*. There remains that other sort, concerning which men entertain opinions with variety of Assent, though the things be such that, *falling not under the reach of our senses*, they are not capable of *testimony*. Such are, (1) The *existence*, *nature*, and *operations* [1.] of finite *immaterial* 'beings' without us, as 'spirits,' 'angels,' 'devils,' &c., or the existence [2.] of *material* 'beings,' which, either from their *smallness* in themselves or *remoteness* from us, our senses cannot take notice of; as whether there be any plants, animals, and intelligent inhabitants in the planets and other mansions of the vast Universe: (2) concerning the *manner of operation* in most parts of the works of Nature; wherein, though we see the sensible *effects*, yet their *causes* are unknown, and we perceive not the ways and manner *how* they are produced. For [*causes*] coming not within the scrutiny of human *senses*, cannot be examined by them, or be attested by anybody, and therefore can appear more or less *probable* only as they more or less *agree to truths that are established* in our minds, and as they hold *proportion* to other parts of our Knowledge and *observation.* *Analogy*—in these matters—*is the only help we have; and it is from that alone we draw all our grounds of* Probability. Thus *finding* in all parts of the Creation, that fall under human *observation*, that there is a *gradual connexion* of one with another,—so that, in the several ranks of beings, it is not easy to discover the *bounds*—we have *reason* to be persuaded that by such gentle steps *things ascend in degrees of perfection.* *Observing* [also] such gradual and gentle *descents* in those parts of the Creation that are beneath Man, the rule of *Analogy* may make it probable that it is so also in things *above* us and our observation; and that there are several ranks of intelligent 'beings,' excelling us in several degrees of perfection, ascending towards the infinite perfection of the Creator by gentle steps and differences, that are, every one, at no great distance from the next to it. This sort of Probability—which is the best conduct of rational *experiments* and the rise of *hypotheses*, has also its use and influence ; and a wary reasoning from Analogy leads us often into the discovery of truths and useful productions, which would otherwise lie concealed.

One case where contrary experience lessens not the testimony.—There is *one case* wherein the *strangeness* of the fact *lessens not* the assent to *a fair testimony* given of it. For, where supernatural events are *suitable to ends* aimed at by Him who has *the power to change* the course of nature, *there*, under such circumstances, they may be *the fitter* to procure belief, BY HOW MUCH THE MORE they are beyond, or contrary to, ordinary observation. This is the proper case of MIRACLES; which, *well attested*, do not only find credit themselves, but give it also to other Truths which need such confirmation.

The bare testimony of revelation is the highest certainty.—Besides those we have hitherto mentioned, there is *one sort* of Propositions that challenge[s] the *highest degree* of our Assent [i. e. *Assurance*] upon *bare testimony*, whether the thing proposed agree or disagree with common experience and the ordinary course of things or not. The reason whereof is—because the *testimony* is of One [Who] *cannot deceive or be deceived*, and that is—of GOD Himself. This carries with it Assurance beyond *doubt*—Evidence beyond *exception*. This is called by a peculiar name—*Revelation;* and our Assent to it—Faith: which as absolutely determines our minds, and as perfectly excludes all wavering, as our Knowledge itself; and we may as well doubt of our own being as we can [doubt] whether any Revelation from GOD be *true*. So that Faith is *a settled and sure principle* of Assent and Assurance; and leaves no manner of room for doubt or hesitation. Only *we must be sure* [1.] *that it be* a Divine Revelation, and [2.] *that we understand it right:* else we shall expose ourselves to all the extravagancy of Enthusiasm, and all the error of wrong 'principles,' if we have *faith* and *assurance* in *what is not* 'divine revelation.' And therefore, in those cases, our Assent can be no higher than [1.] *the evidence of its being* a Revelation, and [2.] that *this is the meaning* of the expressions it is delivered in. If the evidence of its *being* a Revelation, or that *this is* its true sense, be only on *probable* proofs, our Assent can reach no higher than an assurance or diffidence [as the case may be] arising from the more or less apparent probability of the *proofs.* But of Faith, and the precedency it ought to have before other arguments of persuasion, I shall speak more hereafter, where I treat of it as it is ordinarily placed—in contradistinction to Reason; though, in truth, it be nothing else but—an Assent founded on *the highest* Reason.

◆

CHAPTER XVII.

OF REASON.

Various significations of the word 'reason.'—The word 'Reason,' in the English language, has different significations. [1.] Sometimes it is taken for—*true* and *clear* Principles; [2.] sometimes for—*clear* and *fair* Deductions from those principles; and [3.] sometimes for—the Cause—and particularly, *the final* Cause. But the consideration I shall have of it here is in a signification different from all these; and that is—as it stands for a Faculty in man; [4.]—that Faculty whereby Man is supposed to be distinguished from beasts, and wherein it is evident he much surpasses them.

Wherein reasoning consists.—If general Knowledge, as has been shown, consists in a Perception of the agreement or disagreement of our own ideas, and the Knowledge of the existence of all things *without* us (except only of a God, Whose existence every man may *certainly know* and *demonstrate* to himself from *his* *own* existence) be had only by our *senses*, what room, then, is there for the exercise of any other Faculty but—Outward Sense and Inward Perception? What need is there of Reason? Very much; both [1.] *for the enlargement of our* Knowledge and [2.] *regulating our* Assent: for it has to do both in Knowledge and Opinion, and is necessary and assisting to all our other intellectual faculties, and indeed *contains* two of them, viz.—Sagacity and Illation. By the one *it finds out*, and by the other it so *orders*, the intermediate ideas [or *proofs*] as to discover what connexion there is in each link of the chain, whereby *the extremes* are held together; and thereby, as it were, to draw into view the truth sought for, which is that we call—Illation, or Inference; and consists in nothing but—the Perception of the connexion [that] there is between the ideas *in each step* of the deduction, whereby the mind comes to see either the *certain* agreement or disagreement of any two ideas, as in Demonstration, in which it arrives at Knowledge, or their *probable* connexion on which it gives or withholds its Assent, as in Opinion. Sense and Intuition reach but a very little way. The greatest part of our Knowledge depends upon deductions and intermediate ideas: and in those cases where we are fain to substitute Assent instead of Knowledge, and *take* propositions for true without being *certain* they are so, we have need to find out, examine, and compare, *the grounds* of their Probability. In both these cases the Faculty which finds out the means, and rightly applies them to discover certainty in the one, and probability in the other, is that which we call—Reason. For, as Reason perceives the necessary and *indubitable* connexion of all the ideas or proofs one to another in each step of any demonstration that produces Knowledge, so it likewise perceives the *probable* connexion of all the ideas or proofs one to another, in every step of a discourse to which it will think Assent due. This is the lowest Degree of that which can be truly called—Reason. For, where the mind does not perceive this probable connexion—where it does not discern whether there be any such connexion or not—there men's opinions are not the product of Judgment, or the consequence of Reason, but the effects of *chance* and hazard—of a mind floating at all adventures, without choice and without direction.

Its four parts.—So that we may in reason consider these Four Degrees: The *first*, and highest, is—The discovering and finding out of proofs; the *second*,—The regular and methodical disposition of them, and laying them in a clear and fit order, to make their connexion and force be plainly and easily perceived; the *third* is,—Perceiving their connexion: and the *fourth*,—Making a right conclusion. These several Degrees may be observed in any mathematical demonstration: it being one thing to perceive the connexion of each part as the demonstration is made by another; another, to perceive the dependence of the conclusion on all the parts; a third, to make out a demonstration clearly and neatly one's self; and something different from all these, to have first found out those intermediate ideas or proofs by which it is made.

[LOCKE'S ARGUMENT AGAINST SYLLOGISM.*]

Syllogism not the great instrument of reason.—There is one thing more which I shall desire to be considered concerning Reason: and that is, whether Syllogism, as is generally thought, be the proper instrument of it, and the most useful way of exercising this faculty. The causes I have to doubt, are these:—

First. Because syllogism serves our reason but in one only of the fore-mentioned parts of it; and that is, to show the connexion of the proofs in any one instance and no more; but in this it is of no great use, since the mind can perceive such connexion where it really is as easily, nay perhaps better, without it.

If we will observe the actings of our own minds, we shall find that we reason best and clearest when we only observe the connexion of the proof, without reducing our thoughts to any rule of syllogism. And therefore we may take notice, that there are many men that reason exceeding clear and rightly, who know not how to make a syllogism. He that will look into many parts of Asia and America will find men reason there, perhaps, as acutely as himself, who yet never heard of a syllogism, nor can reduce any one argument to those forms: and I believe scarcely any one ever makes syllogisms in reasoning within himself. Indeed, syllogism is made use of on occasion to discover a fallacy hid in a rhetorical flourish, or cunningly wrapped up in a smooth period; and, stripping an absurdity of the cover of wit and good language, show it in its naked deformity. But the weakness or fallacy of such a loose discourse it shows, by the artificial form it is put into, only to those who have thoroughly studied mode and figure, and have so examined the many ways that three propositions may be put together, as to know which of them does certainly conclude right, and which not, and upon what grounds it is that they do so. All who have so far considered syllogism as to see the reason why, in three propositions laid together in one form, the conclusion will be certainly right, but in another not certainly so, I grant are certain of the conclusions they draw from the premises in the allowed modes and figures. But they who have not so far looked into those forms are not sure, by virtue of syllogism, that the conclusion certainly follows from the premises; they only take it to be so by an implicit faith in their teachers, and a confidence in those forms of argumentation: but this is still but believing, not being certain. Now, if of all mankind those who can make syllogisms are extremely few in comparison with those who cannot, and if of those few who have been taught logic there is but a very small number who do any more than believe that syllogisms in the allowed modes and figures do conclude right, without knowing certainly that they do so; if syllogisms must be taken for the only proper instrument of reason and means of knowledge; it will follow, that before Aristotle there was not one man that did or could know anything by reason; and that, since the invention of syllogisms, there is not one of ten thousand that doth.

---

* **So much has been spoken and written respecting LOCKE's attack upon the Aristotelian system, that I have not here ventured to modify the text in any way. Exactly as the argument appears in the best editions, so, word for word, (*valeat quantum*), the reader has it. Meanwhile, by this temporary suspension of retrenchment, and of the adjustment of typographical marks to the emphatic conveyance of the sense, the student is placed in a good position for comparing the practical effects produced upon his apprehension and memory by the ordinary form of publication with those which he has experienced from the general system adopted in this Abridgment.—ED.**

But God has not been so sparing to men to make them barely two-legged creatures, and left it to Aristotle to make them rational; i. e. those few of them that he could get so to examine the grounds of syllogisms as to see that in above threescore ways that three propositions may be laid together, there are but about fourteen wherein one may be sure that the conclusion is right, and upon what grounds it is that in these few the conclusion is certain, and in the other not. God has been more bountiful to mankind than so; he has given them a mind that can reason without being instructed in methods of syllogising: the understanding is not taught to reason by these rules; it has a native faculty to perceive the coherence or incoherence of its ideas, and can range them right without any such perplexing repetitions. I say not this any way to lessen Aristotle, whom I look on as one of the greatest men amongst the ancients; whose large views, acuteness, and penetration of thought, and strength of judgment, few have equalled; and who, in this very invention of forms of argumentation, wherein the conclusion may be shown to be rightly inferred, did great service against those who were not ashamed to deny anything. And I readily own, that all right reasoning may be reduced to his forms of syllogism. But yet I think, without any diminution to him, I may truly say, that they are not the only nor the best way of reasoning, for the leading of those into truth who are willing to find it, and desire to make the best use they may of their reason for the attainment of knowledge. And he himself, it is plain, found out some forms to be conclusive and others not, not by the forms themselves, but by the original way of knowledge, i. e. by the visible agreement of ideas. Tell a country gentlewoman that the wind is south-west, and the weather louring and like to rain, and she will easily understand it is not safe for her to go abroad thin-clad in such a day, after a fever: she clearly sees the probable connexion of all these, viz. south-west wind, and clouds, rain, wetting, taking cold, relapse, and danger of death, without tying them together in those artificial and cumbersome fetters of several syllogisms that clog and hinder the mind, which proceeds from one part to another quicker and clearer without them: and the probability which she easily perceives in things thus in their native state would be quite lost, if this argument were managed learnedly and proposed in mode and figure. For it very often confounds the connexion: and, I think, every one will perceive in mathematical demonstrations, that the knowledge gained thereby comes shortest and clearest without syllogisms.

Inference is looked on as the great act of the rational faculty; and so it is when it is rightly made: but the mind, either very desirous to enlarge its knowledge, or very apt to favour the sentiments it has once imbibed, is very forward to make inferences, and therefore often makes too much haste before it perceives the connexion of the ideas that must hold the extremes together.

To infer is nothing but, by virtue of one proposition laid down as true, to draw in another as true; i. e. to see or suppose such a connexion of the two ideas of the inferred proposition. V. g. let this be the proposition laid down, "Men shall be punished in another world," and from thence be inferred this other, "Then men can determine themselves." The question now is to know, whether the mind has made this inference right or no; if it has made made it by finding out the intermediate ideas, and taking a view of the connexion of them placed in a due order, it has proceeded rationally, and made a right inference. If it has done it without such a view, it has not so much made an inference that will hold, or an inference of right reason, as shown a willingness to have it be, or be taken for such. But in neither case is it syllogism that discovered those ideas, or showed the connexion of them; for they must be both found out, and the connexion everywhere perceived, before they can rationally be made use of in syllogism: unless it can be said that any idea, without considering what connexion it hath with the two other, whose agreement should be shown by it, will do well enough in a syllogism, and may be taken at a venture for the *medius terminus* to prove any conclusion. But this nobody will say, because it is by virtue of the perceived agreement of the intermediate idea with the extremes, that the extremes are concluded to agree, and therefore each interminate idea must be such as in the whole chain hath a visible connexion with those two it is placed between, or else thereby the conclusion cannot be inferred or drawn in; for wherever any link of the chain is loose and without connexion, there the whole strength of it is lost, and it hath no force to infer or draw in anything. In the instance above mentioned what is it shows the force of the inference, and consequently the reasonableness of it, but a view of the connexion of all the intermediate ideas that draw in the conclusion or proposition inferred? v. g. "Men shall be punished; God the punisher; just punishment; the punished guilty; could have done otherwise; freedom; self-determination;" by which chain of ideas thus visibly linked together in train, i. e. each intermediate idea agreeing on each side with those two it is immediately placed between, the ideas of men and self-determination appear to be connected; i. e. this proposition, "Men can determine themselves," is drawn in or inferred from this, that "they shall be punished in the other world." For here the mind, seeing the connexion there is between the idea of men's punishment in the other world and the idea of God punishing, between God punishing and the justice of the punishment, between justice of punishment and guilt, between guilt and a power to do otherwise, between a power to do otherwise and freedom, and between freedom and self-determination, sees the connexion between men and self-determination.

Now, I ask, whether the connexion of the extremes be not more clearly seen in this simple and natural disposition than in the perplexed repetitions and jumble of five or six syllogisms? I must beg pardon for calling it jumble till somebody shall put these ideas into so many syllogisms, and then say that they are less jumbled, and their connexion more visible, when they are transposed and repeated, and spun out to a greater length in artificial forms, than in that short, natural plain order they are laid down in here, wherein every one may see it; and wherein they must be seen before they can be put into a train of syllogisms. For the natural order of the connecting ideas must direct the order of the syllogisms, and a man must see the connexion of each intermediate idea with those that it connects, before he can with reason make use of it in a syllogism. And when all those syllogisms are made, neither those that are nor those that are not logicians will see the force of the argumentation, i. e. the connexion of the extremes, one jot the better. (For those that are not men of art, not knowing the true forms of syllogism, nor the reasons of them, cannot know whether they are made in right and conclusive modes and figures or no, and so are not at all helped by the forms they are put into, though by them the natural order, wherein the mind could judge of their respective connexion, being disturbed, renders the illation much more uncertain than without them.) And as for logicians themselves, they see the connexion of each intermediate idea with those it stands between (on which the force of the inference depends), as well before as after the syllogism is made, or else they do not see it all. For a syllogism neither shows nor strengthens the connexion of any two ideas immediately put together, but only by the connexion seen in them shows what connexion the extremes have one with another.

But what connexion the intermediate has with either of the extremes in that syllogism, that no syllogism does or can show. That the mind only doth or can perceive, as they stand there in that juxta position, only by its own view, to which the syllogistical form it happens to be in gives no help or light at all; it only shows that if the intermediate idea agrees with those it is on both sides immediately applied to, then those two remote ones, or, as they are called, "extremes," do certainly agree; and therefore the immediate connexion of each idea to that which it is applied to on each side, on which the force of the reasoning depends, is as well seen before as after the syllogism is made, or else he that makes the syllogism could never see it at all. This, as has been already observed, is seen only by the eye, or the perceptive faculty of the mind, taking a view of them laid together in a juxta position; which view of any two it has equally whenever they are laid together in any proposition, whether that proposition be placed as a major or a minor, in a syllogism, or no.

"Of what use, then, are syllogisms?" I answer, Their chief and main use is in the Schools, where men are allowed, without shame, to deny the agreement of ideas that do manifestly agree; or out of the Schools, to those who from thence have learned, without shame, to deny the connexion of ideas which even to themselves is visible. But to an ingenuous searcher after truth; who has no other aim but to find it, there is no need of any such form to force the allowing of the inference; the truth and reasonableness of it are better seen in ranging of the ideas in a simple and plain order. And hence it is that men, in their own inquiries after truth, never use syllogisms to convince themselves (or, in teaching others, to instruct willing learners), because, before they can put them into a syllogism, they must see the connexion that is between the intermediate idea and the two other ideas it is set between and applied to to show their agreement; and when they see that, they see whether the inference be good or no, and so syllogism comes too late to settle it. For, to make use again of the former instance, I ask, whether the mind, considering the idea of justice placed as an intermediate idea between the punishment of men and the guilt of the punished (and till it does so consider it, the mind cannot make use of it as a *medius terminus*), does not as plainly see the force and strength of the inference as when it is formed into syllogism? To show it in a very plain and easy example: Let *animal* be the intermediate idea, or *medius terminus*, that the mind makes use of to show the connexion of *homo* and *vivens;* I ask, whether the mind does not more readily and plainly see that connexion in the simple and proper position of the connecting idea in the middle, thus,

Homo——Animal——Vivens,

than in this perplexed one,

Animal——Vivens——Homo——Animal?

which is the position these ideas have in a syllogism, to show the connexion between *homo* and *vivens* by the intervention of *animal.*

Indeed, syllogism is thought to be of necessary use, even to the lovers of truth, to show them the fallacies that are often concealed in florid, witty, or involved discourses. But that this is a mistake, will appear if we consider that the reason why sometimes men who sincerely aim at truth are imposed upon by such loose, and, as they are called, rhetorical discourses, is, that their fancies being struck with some lively metaphorical representations, they neglect to observe or do not easily perceive what are the true ideas upon which the inference depends. Now, to show such men the weakness of such an argumentation, there needs no more but to strip it of the superfluous ideas which, blended and confounded with those on which the inference depends, seem to show a connexion where there is none, or at least to hinder the discovery of the want of it: and then to lay the naked ideas on which the force of the argumentation depends in their due order; in which position the mind, taking a view of them, sees what connexion they have, and so is able to judge of the inference, without any need of a syllogism at all.

I grant that "mode" and "figure" are commonly made use of in such cases, as if the detection of the incoherence of such loose discourses were wholly owing to the syllogistical form; and so I myself formerly thought, till, upon a stricter examination, I now find that laying the intermediate ideas naked in their due order shows the incoherence of the argumentation better than syllogism; not only as subjecting each link of the chain to the immediate view of the mind in its proper place, whereby its connexion is best observed; but also because syllogism shows the incoherence only to those (who are not one of ten thousand) who perfectly understand mode and figure, and the reason upon which those forms are established: whereas a due and orderly placing of the ideas upon which the inference is made, makes every one, whether logician or not logician, who understands the terms, and hath the faculty to perceive the agreement or disagreement of such ideas (without which, in or out of syllogism, he cannot perceive the strength or weakness, coherence or incoherence of the discourse), see the want of connexion in the argumentation, and the absurdity of the inference.

And thus I have known a man unskilful in syllogism, who at first hearing could perceive the weakness and inconclusiveness of a long artificial and plausible discourse, wherewith others better skilled in syllogism have been misled; and I believe there are few of my readers who do not know such. And indeed, if it were not so, the debates of most princes' councils and the business of assemblies would be in danger to be mismanaged, since those who are relied upon, and have usually a great stroke in them, are not always such who have the good luck to be perfectly knowing in the forms of syllogism, or expert in mode and figure. And if syllogism were the only, or so much as the surest, way to detect the fallacies of artificial discourses, I do not think that all mankind, even princes in matters that concern their crowns and dignities, are so much in love with falsehood and mistake that they would everywhere have neglected to bring syllogism into the de- of moment, or thought it ridiculous so much as er them in affairs of consequence; a plain evidence to me, that men of parts and penetration, who were not idly to dispute at their ease, but were to act according to the result of their debates, and often pay for their mistakes with their heads or fortunes, found those scholastic forms were of little use to discover truth or fallacy, whilst both the one and the other might be shown, and better shown, without them to those who would not refuse to see what was visibly shown them.

Secondly. Another reason that makes me doubt whether syllogism be the only proper instrument of reason in the discovery of truth, is, that of whatever use mode and figure are pretended to be in the laying open of fallacy (which has been above considered), those scholastic forms of discourse are not less liable to fallacies than the plainer ways of argumentation; and for this I appeal to common observation, which has always found these artificial methods of reasoning more adapted to catch and entangle the mind than to instruct and inform the understanding. And hence it is that men, even when they are baffled and silenced in this scholastic way, are seldom or never convinced, and so brought over to the conquering side; they perhaps acknowledge their adversary to be the more skilful disputant, but rest nevertheless persuaded of the truth on their side; and go away, worsted as they are, with the same opinion they brought with them, which they could not do if this way of argumentation carried light and conviction with it, and made men see where the truth lay; and therefore syllogism has been thought more proper for the attaining victory in dispute, than for the discovery or confirmation of truth in fair inquiries: and if it be certain that fallacies can be couched in syllogisms, as it cannot be denied, it must be something else, and not syllogism, that must discover them.

I have had experience how ready some men are, when all the use which they have been wont to ascribe to any thing is not allowed, to cry out, that I am for laying it wholly aside. But to prevent such unjust and groundless imputations, I tell them, that I am not for taking away any helps to the understanding in the attainment of knowledge; and if men skilled in and used to syllogisms find them assisting to their reason in the discovery of truth, I think they ought to make use of them. All that I aim at is, that they should not ascribe more to these forms than belongs to them; and think that men have no use, or not so full a use, of their reasoning faculty without them. Some eyes want spectacles to see things clearly and distinctly; but let not those that use them therefore say, nobody can see clearly without them: those who do so will be thought in favour of art (which perhaps they are beholding to) a little too much to depress and discredit nature. Reason, by its own penetration, where it is strong and exercised, usually sees quicker and clearer without syllogism. If use of those spectacles has so dimmed its sight that it cannot without them see consequences or inconsequences in argumentation, I am not so unreasonable as to be against the using them. Every one knows what best fits his own sight; but let him not thence conclude all in the dark who use not just the same helps that he finds a need of.

Helps little in demonstration, less in probability.—

But, however it be in knowledge, I think I may truly say, it is of far less or no use at all in probabilities. For, the assent there being to be determined by the preponderancy, after a due weighing of all the proofs with all circumstances on both sides, nothing is so unfit to assist the mind in that as syllogism; which, running away with one assumed probability, or one topical argument, pursues that till it has led the mind quite out of sight of the thing under consideration; and, forcing it upon some remote difficulty, holds it fast there entangled perhaps, and as it were manacled, in the chain of syllogisms, without allowing it the liberty, much less affording it the helps, requisite to show on which side, all things considered, is the greater probability.

Serves not to increase our knowledge, but fence with it.—But let it help us (as perhaps may be said) in convincing men of their errors and mistakes, (and yet I would fain see the man that was forced out of his opinion by dint of syllogism); yet still it fails our reason in that part which, if not its highest perfection, is yet certainly its hardest task, and that which we most need its help in; and that is, the finding out of proofs, and making new discoveries. The rules of syllogism serve not to furnish the mind with those intermediate ideas that may show the connexion of remote ones. This way of reasoning discovers no new proofs, but is the art of marshalling and ranging the old ones we have already. The forty-seventh proposition of the first book of Euclid is very true; but the discovery of it, I think, not owing to any rules of common logic. A man knows first, and then he is able to prove syllogistically: so that syllo-

certain that fallacies can be c
cannot be denied, it must b
yllogism, that must discover
have had experience how read
he use which they have been
g is not allowed, to cry out,
ly aside. But to prevent su
imputations, I tell them, th
any helps to the understan
owledge; and if men skilled
s find them assisting to the
of truth, I think they ough
hat I aim at is, that they sh
hose forms than belongs to
have no use, or not so full
lty without them. Some e
things clearly and distinctly
them therefore say, nobody
: those who do so will be t
ch perhaps they are behold
epress and discredit nature
tration, where it is strong
quicker and clearer without
e spectacles has so dimmed
out them see consequences
entation, I am not so unre
using them. Every one kn
n sight; but let him not the
k who use not just the sa
of it.
lidge little in demonstration

are
ies. Th
ent is the
we have al
first book of
it, I think, no
A man knows
stically:

y be almost as much
t between men there-
men are, as between
I do not pretend to
y of those right helps
ought mentions: but
the logic now in use,
days, can be none of
r me, if by a discourse,
(I am sure, as to me,
hall have given occa-
ew discoveries, and to
ose right helps of art
ar, by those who ser-
rules and dictates of
se sort of cattle (as an
vhose thoughts reach
est, sed quo itur. But
is adorned with some
and largeness of com-
mploy their thoughts
nd undiscovered ways

-Having here had an
general, and the use of
ent of our knowledge,
t, to take notice of one
syllogism; viz. "that
right and conclusive
eral proposition in it;"
e knowledge about par-

gism comes after knowledge; and then a man has little or no need of it. But it is chiefly by the finding out those ideas that show the connexion of distant ones, that our stock of knowledge is increased, and that useful arts and sciences are advanced. Syllogism, at best, is but the art of fencing with the little knowledge we have, without making any addition to it; and if a man should employ his reason all this way, he will not do much otherwise than he who, having got some iron out of the bowels of the earth, should have it beaten up all into swords, and put it into his servants' hands to fence with and bang one another. Had the King of Spain employed the hands of his people and his Spanish iron so, he had brought to light but little of that treasure that lay so long hid in the dark entrails of America. And I am apt to think, that he who shall employ all the force of his reason only in brandishing of syllogisms will discover very little of that mass of knowledge which lies yet concealed in the secret recesses of nature; and which, I am apt to think, native rustic reason (as it formerly has done) is likelier to open a way to, and add to the common stock of mankind, rather than any scholastic proceeding by the strict rules of mode and figure.

7. *Other helps should be sought.*—I doubt not, nevertheless, there are ways to be found to assist our reason in this most useful part; and this the judicious Hooker encourages me to say, who, in his Eccl. Pol. lib. i. sect. 6, speaks thus: "If there might be added the right helps of true art and learning (which helps, I must plainly confess, this age of the world, carrying the name of a learned age, doth neither much know nor generally

regard), there would undoubtedly be almost as much difference in maturity of judgment between men therewith inured, and that which now men are, as between men that are now and innocents." I do not pretend to have found or discovered here any of those right helps of art this great man of deep thought mentions: but this is plain, that syllogism, and the logic now in use, which were as well known in his days, can be none of those he means. It is sufficient for me, if by a discourse, perhaps something out of the way (I am sure, as to me, wholly new and unborrowed), I shall have given occasion to others to cast about for new discoveries, and to seek in their own thoughts for those right helps of art which will scarcely be found, I fear, by those who servilely confine themselves to the rules and dictates of others: for beaten tracks lead these sort of cattle (as an observing Roman calls them), whose thoughts reach only to imitation, *non quo eundum est, sed quo itur*. But I can be bold to say, that this age is adorned with some men of that strength of judgment and largeness of comprehension, that, if they would employ their thoughts on this subject, could open new and undiscovered ways to the advancement of knowledge.

We reason about particulars.—Having here had an occasion to speak of syllogism in general, and the use of it in reasoning and the improvement of our knowledge, it is fit, before I leave this subject, to take notice of one manifest mistake in the rules of syllogism; viz. "that no syllogistical reasoning can be right and conclusive but what has, at least, one general proposition in it;" as if we could not reason and have knowledge about particulars: whereas, in truth, the matter rightly considered, the immediate object of all our reasoning and knowledge is nothing but particulars. Every man's reasoning and knowledge is only about the ideas existing in his own mind, which are truly, every one of them, particular existences; and our knowledge and reasoning about other things is only as they correspond with those our particular ideas. So that the perception of the agreement or disagreement of our particular ideas is the whole and utmost of all our knowledge. Universality is but accidental to it, and consists only in this, that the particular ideas about which it is are such as more than one particular thing can correspond with and be represented by. But the perception of the agreement or disagreement of any two ideas, and consequently our knowledge, is equally clear and certain, whether either, or both, or neither of those ideas be capable of representing more real beings than one, or no. One thing more I crave leave to offer about syllogism before I leave it, viz. May one not upon just ground inquire whether the form syllogism now has, is that which in reason it ought to have? For, the *medius terminus* being to join the extremes, i. e. the intermediate ideas by its intervention, to show the agreement or disagreement of the two in question, would not the position of the *medius terminus* be more natural, and show the agreement or disagreement of the extremes clearer and better, if it were placed in the middle between them? which might be easily done by transposing the propositions, and making the *medius terminus* the predicate of the first, and the subject of the second. As thus:

Omnis homo est animal,
Omne animal est vivens,
Ergo omnis homo est vivens.

Omne corpus est extensum et solidum,
Nullum extensum et solidum est pura extensio,
Ergo corpus non est pura éxtensio.

I need not trouble my reader with instances in syllogisms whose conclusions are particular. The same reason holds for the same form in them as well as in the general.

Reason, though it penetrates into the depths of the sea and earth, elevates our thoughts as high as the stars, and leads us through the vast spaces and large rooms of this mighty fabric, yet comes far short of the real extent of even 'corporeal being;' and there are many instances wherein it fails us: as,

Reason fails us for want of ideas.—*First,*—It perfectly fails us *where our ideas fail.* It neither does nor can extend itself farther than they do. And therefore wherever we have no *ideas,* our Reasoning stops, and we are at an end of our reckoning: and if at any time we reason about words which do not stand for any ideas, it is only about those sounds and nothing else.

Because of obscure and imperfect ideas.—*Secondly,* Our Reason is often puzzled and at a loss *because of the obscurity, confusion, or imperfection of the ideas it is employed about;* and there we are involved in difficulties and contradictions. Thus, not having any perfect idea of *the* *least* 'extension of matter,' nor of 'infinity,' we are at a loss about the 'divisibility of matter;' but having perfect, clear, and distinct ideas of 'number,' our Reason meets with none of those inextricable difficulties in numbers, nor finds itself involved in any contradictions about them. Thus we, having but imperfect ideas of the *operations* of our minds, and of the *beginning* of Motion or Thought,—*how* the mind produces either of them in us,—and much [more] imperfect yet of the operation of GOD, run into great difficulties about 'free created agents,' which Reason cannot well extricate itself out of.

For want of intermediate ideas.—Thirdly, Our Reason is often at a stand *because it perceives not those ideas which could serve to show the certain or probable agreement or disagreement of any two other ideas:* and in this some men's faculties far outgo others'. Till algebra, that great instrument and instance of human sagacity, was discovered, men with amazement looked on several of the demonstrations of ancient mathematicians, and could scarcely forbear to think the finding several of those proofs to be something more than human.

Because of wrong principles.—Fourthly, The mind, *by proceeding upon false principles,* is often engaged in absurdities and difficulties, brought into straits and contradictions, without knowing how to free itself: and in that case it is in vain to implore the help of Reason, unless it be to discover the falsehood and reject the influence of those wrong principles. Reason is so far from clearing the difficulties which the building upon *false foundations* brings a man into, that, if he will pursue it, *it entangles him the more*, and engages him deeper in perplexities.

Because of doubtful terms.—Fifthly, As obscure and imperfect ideas often involve our Reason, so, upon the same ground, do dubious words and uncertain *signs* often, in discourses and arguings, when not warily attended to, puzzle men's Reason, and bring them to a nonplus: but these two latter are *our* fault, and not the fault of Reason. But yet the consequences of them are nevertheless obvious; and the perplexities or errors they fill men's minds with are everywhere observable.

Intuition, demonstration, judgment.—[The Relations of Knowledge and Judgment may be thus summed up:] Intuitive Knowledge is—The perception of the *certain* agreement or disagreement of two ideas *immediately compared* together:

Rational Knowledge [or, Demonstration] is—The perception of the *certain* agreement or disagreement of any two ideas by the intervention of one or more other ideas:

Judgment is—The *thinking*, or *taking*, two ideas to agree or disagree, by the intervention of one or more ideas, whose *certain* agreement or disagreement with them *it does not perceive*, but has *observed to be frequent and usual.*

Consequences of words, and consequences of ideas.—Though the deducing one Proposition from another—or making inferences in *words*—be a great part of Reason, and that which it is usually employed about,—yet the *principal act* of Ratiocination is—The finding the agreement or disagreement of two ideas one with another by the intervention of a third: as a man by a yard finds two houses to be of the same length, which could not be brought together to measure their equality by juxtaposition. Words have their consequences as the *signs* of such ideas: and *things* agree or disagree as *really* they are; but we *observe it* only by our *ideas.*

Four sorts of arguments.—Before we quit this subject, it may be worth our while a little to reflect on *four sorts* of Arguments that men in their reasonings with others ordinarily make use of to prevail on their Assent; or, at least, so to awe them as to silence their opposition.

The *First* is—to allege the opinions of men whose parts, learning, eminenc[e], power, or some other cause, have gained a name and settled their reputation in the common esteem with some kind of *authority.* This I think may be called—*Argumentum ad verecundiam.*

Secondly—Another way that men ordinarily use to drive others and force them to submit their judgments and receive the opinion in debate, is—to require the adversary to admit what they allege as a proof, or to assign a better. And this I call—*Argumentum ad ignorantiam.*

A *Third* way is—to press a man with consequences drawn from his own principles or concessions. This is already known under the name of—*Argumentum ad hominem.*

The *Fourth* is—the using of *proofs* drawn from any of the foundations of Knowledge or Probability. This I call—*Argumentum ad judicium.*

This [last] alone, of all the four, brings true instruction with it, and advances us in our way of Knowledge. For (1) It argues not another man's opinion to be right, because

I, out of respect, or any other consideration but that of conviction, will not contradict him. (2) It proves not another man to be in the right way, nor that I ought to take the same with him, because I know not a better. (3) Nor does it follow that another man is in the right way because he has shown me that I am in the wrong. I may be modest, and therefore not oppose another man's persuasion; I may be ignorant, and not be able to produce a better; I may be in error, and another may show me that I am so. This may *dispose* me, perhaps, for the reception of Truth, but *helps* me not to it; that must come from *proofs* and *arguments*, and light arising from the nature of things themselves, and not from my shamefacedness, ignorance, or error.

Propositions above, contrary, and according to, reason.—By what has been before said of Reason, we may be able to make some guess at the distinction of things, into those that are *according to*, *above*, and *contrary to*, Reason. (1) Propositions 'according to Reason' are such whose truth we can discover by examining and tracing those ideas we have from sensation and reflection, and by natural deduction find to be true or probable. (2) Propositions 'above Reason' are such whose truth or probability we cannot by Reason derive from those principles· (3) Propositions 'contrary to reason' are such as are inconsistent with, or irreconcileable to, our clear and distinct ideas. Thus the existence of one God is *according to* Reason; the existence of more than one God—*contrary to* Reason; the Resurrection of the dead *above* Reason. Farther: as 'above reason' may be taken in a double sense, viz.: either as signifying 'above *probability*,' or 'above *certainty*'—so in that large sense also 'contrary to Reason' is, I suppose, sometimes taken.

Reason and faith not opposite.—There is [5.*] another use of the word *Reason*, wherein it is opposed to *Faith;* which—though it be in itself a very improper way of speaking—yet common use has so authorized, that it would be folly either to oppose or hope to remedy it. Only I think it may not be amiss to take notice, that, however Faith be opposed to Reason, Faith is nothing but *a firm assent of the mind;* which, if it be regulated as is our duty, cannot be afforded to anything but upon good reason, and so cannot be opposite to it. He that *believes* without having any *reason* for believing may be in love with his own fancies; but neither seeks Truth as he ought, nor pays the obedience due to his Maker, who would have him *use* those discerning faculties [which] he has given him to keep him out of mistake and error.

◆

CHAPTER XVIII.

OF FAITH AND REASON, AND THEIR DISTINCT PROVINCES.

Necessary to know their boundaries.—It has been shown (1) That we are of necessity ignorant, and want Knowledge *of all sorts*, where we want ideas. (2) That we are ignorant, and want Rational Knowledge, where we want proofs. (3) That we want General Knowledge and *certainty* as far as we want clear and determined specific ideas. (4) That we want Probability to direct our assent in matters where we have neither Knowledge of our own, nor Testimony of other men, to bottom our reason upon.

---

* See page 425.—ED.

From these things thus premised, I think we may come to lay down the measures and boundaries between Faith and Reason; the want whereof may possibly have been the cause, if not of great disorders, yet at least of great disputes, and perhaps mistakes, in the world: for till it be resolved *how far* we are to be guided by Reason, and how far by Faith, we shall in vain dispute and endeavour to convince one another in matters of Religion.

Faith and reason what, as contradistinguished.—I find every sect, as far as Reason will help them, make use of it gladly; and where it fails them, they cry out, 'It is matter of Faith, and *above* Reason.' And I do not see how they can argue with any one, or ever convince a gainsayer, who makes use of the same plea, without setting down *strict boundaries between* Faith and Reason, which ought to be the first point established in all questions where Faith has anything to do.

Reason, therefore, here, as contradistinguished to Faith, I take to be—The discovery of the *certainty* or *probability* of such Propositions or Truths which the mind arrives at by deduction made from such ideas [as] it has got by the use of its natural faculties, viz.—by Sensation or Reflection.

Faith, on the other side, is—The Assent to any Proposition not thus made out by the deductions of Rea-

ertainty as far as we want clear and determined spe-
ideas. (4) That we want Probability to direct our
nt in matters where we have neither Knowledge of
own, nor Testimony of other men, to bottom our
on upon.

rom these things thus premised, I think we may
ne to lay down the measures and boundaries between
ith and Reason; the want whereof may possibly have
en the cause, if not of great disorders, yet at least of
eat disputes, and perhaps mistakes in the world: for
l it be resolved *how far we are to be guided by Rea-*
n, and how far by Faith, we shall in vain dispute and
ndeavour to convince one another in matters of Re-
igion.

Faith and reason what, as contradistinguished.—I find
very sect, as far as Reason will help them, make use of
it gladly; and where it fails them, they cry out, 'It is
matter of Faith, and *above* Reason.' And I do not see
how they can argue with any one, or ever convince a
gainsayer, who makes use of the same plea, without setting down *strict boundaries between* Faith and Reason, which ought to be the first point established in all questions where Faith has anything to do.

Reason, therefore, here, as contradistinguished to Faith, I take to be—The discovery of the *certainty* or *probability* of such Propositions or Truths which the mind arrives at by deduction made from such ideas, which it has

of its natural faculties; viz.—by Sensa-

g

her side, is—The Assent to any

s made out by the deduction

son, but *upon the credit of the proposer*, as coming from God in some extraordinary way of communication. This way of discovering truths to men we call—REVELATION.

No new simple idea can be conveyed by traditional revelation.—First, then, I say, that no man inspired by God can, by any Revelation, communicate to others *any new simple ideas* which they had not before from Sensation or Reflection: for, whatsoever impressions *he himself* may have from the immediate hand of God, this Revelation, if it be of new simple ideas, cannot be conveyed *to another*, either by *words* or any other *signs;* because *words*, by their immediate operation on us, cause no other ideas but of their *natural sounds;* and it is by the *custom* of using them for *signs* that they excite and revive in our minds latent *ideas*, but yet only such ideas as were there before. For, *words* seen or heard recall to our thoughts those ideas only which to us they have been *wont* to be *signs* of; but cannot introduce any perfectly new, and formerly unknown, simple ideas. The same holds in all other *signs*, which cannot signify to us things of which we have before never had any idea at all.

Thus, whatever things were *discovered to* St. Paul when he was rapt up into the Third Heaven—whatever new ideas his mind there received—all the *description* he can make to others of that place is only this—that *there* are such things as 'eye hath not seen, nor ear heard, nor hath it entered into the heart of man to conceive.' For our Simple ideas, then—which are the *foundation* and *sole matter* of all our Notions and Knowledge—we must depend wholly on our Reason—I mean, our *natural* Faculties; and can by no means receive them, or any of them, from *traditional* Revelation; I say, 'traditional Revelation,' in distinction to *original* Revelation. By the [latter] I mean—*That first impression which is made immediately by* God *on the mind of any man*, to which we cannot set any bounds: and by the other,—*Those impressions delivered over to others in words and the ordinary ways* of conveying our conceptions one to another.

Traditional revelation may make us know propositions knowable also by reason, but not with the same certainty that reason doth.—Secondly, I say, that *the same* Truths may be discovered and conveyed down from Revelation, which are discoverable to us by Reason and by those ideas [that] we *naturally* may have. So God *might*, by Revelation, discover the truth of any proposition in Euclid; as well as men, by the natural use of their faculties, come to make the discovery themselves. In all things *of this kind* there is little need or use of Revelation; God having furnished us with natural and surer means to arrive at the knowledge of them. For whatsoever truth we come to the clear discovery of, *from the knowledge and contemplation of our own ideas*, will always be [*more*] *certain* to us than those which are conveyed to us by *traditional* Revelation: for the *knowledge* [which] we [may] have *that this revelation came at first from* God can never be so sure as the *knowledge* [that] we have from *the clear and distinct perception of the agreement or disagreement of our own ideas:* v. g. if it were revealed, some ages since, that the three angles of a triangle were equal to two right ones, I might *assent* to the truth of that proposition *upon the credit of the tradition* that it *was revealed:* but that would never amount to *so great a certainty* as the knowledge of it *upon the comparing and measuring my own ideas* of two right angles, and the three angles of a triangle. The like holds in matter of fact, knowable by our senses: v. g. the History of the Deluge is conveyed to us by writings which had their original from Revelation; and yet nobody, I think, will say he has as *certain* and *clear* a *knowledge* of the flood as Noah that *saw* it, or as he himself would have had, had he then been alive and *seen it.* For he has no greater *assurance* than that of his *senses*, that *it is written* in the Book supposed [to be] written by Moses inspired; but he has not *so great an assurance* that Moses wrote that Book as if he had *seen* Moses write it. So that the *assurance of its being* a Revelation is *less still* than the *assurance of his senses.*

Revelation cannot be admitted against the clear evidence of reason.—And therefore no Proposition can be received for Divine Revelation, or obtain the assent due to all such, if it be contradictory to our *clear* Intuitive Knowledge; because *this would be to subvert the principles and foundations* of all Knowledge, Evidence, and Assent whatsoever: and there would be left no difference between truth and falsehood—no measures of credible and incredible in the world—if doubtful propositions shall take place before self-evident, and what we *certainly* know [shall] give way to what we may *possibly* be mistaken in.

Traditional revelation much less.—Thus far a man has use of Reason, and ought to hearken to it; even in *im-*

mediate and *original* Revelation, where it is supposed to be made to himself: but to all those who pretend not to *immediate* Revelation, but are required to pay obedience, and to receive the truths *revealed to others*, which, by the tradition of writings or word of mouth, are conveyed down to them, Reason has a great deal more to do, and *is that only* which can induce us to receive them. For, matter of Faith being only Divine Revelation and nothing else, Faith (as we use the word, called commonly—Divine Faith) has to do with no Propositions but those which are supposed to be 'divinely revealed.' So that I do not see how those who make Revelation *alone* the sole object of Faith can say that it is a matter of Faith, and not of Reason, to believe that such or such a Proposition, to be found in such or such a book, is of Divine Inspiration, unless it be *revealed* that *that* proposition, or *all* in that book, was communicated by Divine Inspiration.

Things above reason.—But, *Thirdly*, there being many things wherein we have very imperfect notions, or none at all, and other things of whose past, present, or future existence, by the natural use of our faculties, we can have no knowledge at all, these, as being beyond the discovery of our natural faculties and *above* Reason, are, when revealed, the *proper matter* of Faith. Thus—that 'part of the angels rebelled against GOD, and thereby lost their first happy state,' and—that 'the dead shall rise, and live again'—these, and the like, being *beyond the discovery* of Reason, are purely matters of Faith, with which Reason has, directly, nothing to do.

Or not contrary to reason, if revealed, are matter of faith.—But since GOD, in giving us the light of Reason has not thereby tied up His own hands from affording us, when he thinks fit, the light of Revelation in any of those matters wherein our natural faculties are able to give *a probable determination*, Revelation, where GOD has been pleased to give it, *must carry it against* the probable conjectures of Reason; because the mind, not being certain of the truth of that [which] it does not evidently know (but only yielding to the probability that appears in it) is bound to give up its assent to such a testimony, [as], it is satisfied, comes from One who *cannot err*, and will not deceive. But yet it still belongs to Reason to judge [1.] of *the truth of its being* a Revelation, and [2.] of the *signification of the words* wherein it is delivered. Indeed, if anything shall be thought Revelation which is contrary to the plain principles of Reason and the evident Knowledge [that] the mind has of its own clear and distinct ideas, *there* Reason must be hearkened to as to a matter within its province: since a man can never have so certain a *knowledge* that a proposition, which contradicts the clear principles and evidence of his own Knowledge, *was divinely revealed*, or that *he understands the words rightly* wherein it is delivered, as he has *that the contrary is true;* and so [he] is bound to consider, and judge of it, as a matter of Reason, and not swallow it, without examination, as a matter of Faith.

Revelation, in matters where reason cannot judge, or but probably, ought to be hearkened to.—*First*, Whatever Proposition is *revealed*, of whose Truth our mind, by its natural faculties and notions, *cannot* judge,—that is purely matter of Faith, and *above* Reason.

Secondly, All propositions whereof the mind, by the use of its *natural* faculties, can come to determine and judge, from *naturally acquired* ideas, are matter of reason; with this difference still, that in those concerning which it has but an *uncertain* evidence, and so is persuaded of their truth only upon *probable* grounds, which still admit a *possibility of the contrary* to be true, without doing violence to the certain evidence of its own Knowledge, and overturning the principles of all Reason—in such Probable Propositions, I say, *an evident* Revelation ought to determine our assent *even against* Probability. For where the principles of Reason have not evidenced a Proposition to be *certainly* true or false, there *clear* Revelation—as another *principle* of Truth and ground of Assent—may determine; and so it may be matter of Faith, and be also *above* Reason; because, Reason, in that particular matter, being able to reach no higher than Probability, Faith gave the determination where Reason came short, and Revelation *discovered* on which side the truth lay.

In matters where reason can afford certain knowledge, that is to be hearkened to.—Thus far the dominion of Faith reaches, and that without any violence or hindrance to Reason, which is not injured or disturbed, but assisted and improved, by new discoveries of Truth, coming from the eternal Fountain of all Knowledge. Whatever God hath *revealed is certainly* true;—no doubt can be made of it. This is the proper object of Faith: but whether it be a Divine Revelation or not, Reason must judge; which can never permit the mind to *reject a greater evidence* [in order] to embrace what is less evident, nor allow it to entertain Probability in opposition to Knowledge and Certainty. Whatsoever *is* Divine Revelation ought to overrule all our opinions, prejudices, and interests, and has *a right* to be received with full assent: such a submission as this of our Reason to Faith takes not away the landmarks of Knowledge: this shakes not the *foundations* of Reason, but leaves us that use of our faculties for which they were given us.

If the boundaries be not set between faith and reason, no enthusiasm or extravagancy in religion can be contradicted.—If the provinces of Faith and Reason are not kept distinct by these boundaries, there will, in matter of Religion, be no room for Reason at all; and those extravagant opinions and ceremonies that are to be found in several [of the] religions of the world will not deserve to be blamed. So that, in effect, Religion, which should most distinguish us from beasts, and ought most *peculiarly* to elevate us as *rational* creatures above brutes, is that wherein men often appear most irrational, and more senseless than beasts themselves. '*Credo quia impossibile est.*'—'I believe *because* it is impossible,'—might, in a good man, pass for a sally of *zeal*, but would prove a very ill *rule* for men to *choose* their opinions or religion by.

◆

CHAPTER XIX.

OF ENTHUSIASM.

Love of truth necessary.—He that would seriously set upon the search of truth, ought, in the first place, to prepare his mind with a *love* of it; for he that loves it not will not take much pains to get it, nor be much concerned when he misses it. How a man may know whether he be in earnest, is worth inquiry: and I think there is this one unerring mark of it, viz.—*The not entertaining any proposition with greater assurance than the proofs [that] it is built upon will warrant.* Whatsoever credit or authority we give to any proposition more than it receives from the principles and proofs it supports itself upon, is owing to our *inclinations* that way; and is so far a derogation from the love of truth, *as such;* which, as it can receive no *evidence* from our passions or interests, so it should receive no *tincture* from them.

Force of enthusiasm.—Upon this occasion I shall consider a third ground of Assent, which, with some men, has the same authority, and is as confidently relied on, as either Faith or Reason; I mean Enthusiasm: which, laying by Reason, would set up Revelation *without it;* whereby in effect it takes away both Reason and Revelation, and substitutes in the room of [them] the ungrounded fancies of a man's own brain, and assumes *them* for a foundation both of opinion and conduct.

Reason and Revelation.—Reason is—Natural Revelation: whereby the Eternal Father of light, and Fountain of all Knowledge, communicates to mankind that portion of Truth which He has laid within the reach of their natural faculties. Revelation is—Natural Reason *enlarged* by a new set of discoveries communicated by God *immediately:* which *Reason vouches* the truth of, by the testimony and proofs it gives *that they come from* God. So that he that takes away Reason *to make way* *for* Revelation, puts out the light of both; and does much the same as if he would persuade a man to put out his eyes, the better to receive the remote light of an invisible star by a telescope.

Rise of enthusiasm.—Immediate Revelation being a much easier way for men to establish their opinions and regulate their conduct than the tedious and not always successful labour of strict Reasoning, it is no wonder that some have been very apt to *pretend to* Revelation, and to persuade themselves that they are under the peculiar guidance of heaven in their actions and opinions —especially in those of them which they cannot account for by the ordinary methods of Knowledge, and principles of Reason. Hence we see that in all ages men in whom melancholy has mixed with devotion, or whose conceit of themselves has raised them into an opinion of a greater familiarity with God, and a nearer admittance to His favour, than is afforded to others, have often flattered themselves with a persuasion of an *immediate* intercourse with the Deity, and frequent communications from the Divine Spirit. God, I own, cannot be denied *to be able* to enlighten the Understanding by a ray darted into the mind immediately from the Fountain of light. This they understand he has promised to do; and 'who then' [say they] 'has so good a title to expect it as those who are a peculiar people, chosen by Him, and depending on Him'—[i. e., as *themselves*]?

Reason is lost upon them; they are 'above it:' they '*see* the light infused' into their understandings, and 'cannot be mistaken;' it is 'clear and visible' there like the light of bright sunshine; 'shows *itself*,' and 'needs no other proof but its own evidence;' they feel 'the hand of God' moving them within, and 'the impulses of the Spirit,' and cannot be mistaken in what they 'feel.'

This is the way of talking of these men: they are 'sure' *because* they are 'sure;' and their persuasions are 'right,' only because they are 'strong' in them. For, when what they say is stripped of the metaphor of 'seeing' and 'feeling,' this is all it amounts to; and yet these *similes* so impose on them, that they serve them for certainty in themselves, and demonstration to others.

Enthusiasm, how to be discovered.—But—to examine a little soberly this 'internal light,' and this 'feeling' on which they build so much—these men have, they say, 'clear light,' and they 'see;' they have 'an awakened sense,' and they 'feel;' this cannot, they are sure, be disputed them: for, when a man *says* he 'sees' or he 'feels,' nobody can *deny* that he does so. But here let me ask: This 'seeing'—is it the *perception of the truth* of the proposition, or of this—that *it is a revelation from* God? This 'feeling'—is it *a perception of an inclination or fancy* to do something, or—of the Spirit of God *moving that inclination.* The question, then, here is, *how* do I *know* that God *is* the revealer of this to me—that this impression *is* made upon my mind by His Holy Spirit, and that therefore I ought to obey it? If I *know* not this, how great soever the *assurance* is that I am possessed with, it is *groundless;* whatever light I pretend to, it is but—Enthusiasm. For, whether the proposition supposed to be revealed be in itself [1.] evidently *true*, or [2.] visibly *probable*, or [3.], by the natural ways of Knowledge, *uncertain*, the proposition that *must* be well grounded and *manifested to be true* is this—*that* GOD *is the revealer of it;* and that what I take to be a 'revelation' is certainly *put into my mind by Him*, and is not an illusion dropped in by some other Spirit, or raised by my own fancy. For, if I mistake not, these men receive it for true because they presume GOD revealed it. Does it not, then, stand them upon to examine *upon what grounds* they presume it to be a Revelation from GOD? Or else all their confidence is mere presumption; and this light [that] they are so dazzled with is nothing but an *ignis fatuus*, that leads them continually round in this circle—It is a 'revelation,' because they firmly believe it; and they believe it, because it is a 'revelation.'

Enthusiasm fails of evidence that the proposition is from God.—In all that is of Divine Revelation, there is need of *no other proof* but that *it is* an inspiration from GOD: for He can neither deceive nor be deceived. But *how* shall it be *known* that any proposition in our minds is a truth infused by GOD:—a truth that is revealed to us by Him, which He declares to us, and [which] therefore we ought to believe? *Here it is that Enthusiasm fails of the evidence* [*that*] *it pretends to.* For, men thus possessed boast of a light whereby they say they are enlightened and brought into the *knowledge* of this or that truth. But if they know it to be a truth, they must know it to be so either by its own *self-evidence* to *natural* Reason, or by the *rational proofs* that make it out to be so. If they see and know it to be a truth [in] either of these two ways, they in vain suppose it to be a 'revelation.' For they know it to be true by the same way that any other man naturally may know that it is so, without the help of revelation. For thus all the truths, of what kind soever, that men uninspired are enlightened with, came into their minds and are established there. If they say they know it to be true because it is *a revelation* from GOD, the reason is good: but then it will be demanded, *how they know* it to be a 'revelation' from GOD? If they say, 'by the light it brings with it,' which shines bright in their minds, and they cannot resist; I beseech them to consider, whether this be any more than what we have taken notice of already, viz. that it is a 'revelation' because they *strongly believe* it to be true. For all the 'light' they speak of is but a strong, though [it may be] ungrounded, *persuasion* of their own minds that it is a truth. For, *rational* grounds from *proofs* that it is a truth, they *must acknowledge* to have none: for *then* it is not received *as a revelation*; but upon the ordinary grounds that other truths are received: and if they believe it to be true *because* it is a revelation, and have *no other* reason for its being a revelation but because they are *fully persuaded*, without any other reason, that it is true, they believe it to be a 'revelation' *only because they strongly believe* it to be a revelation; which is a very unsafe ground to proceed on, either in our tenets or actions. And what readier way can there be to run ourselves into the most extravagant errors and miscarriages, than thus to set up fancy for our supreme and sole guide, and to believe any proposition to be true,—any action to be right—only because *we believe* it to be so? The strength of *our* persuasions is no evidence at all of their own rectitude: crooked things may be as stiff and inflexible as straight; and men may be as positive and peremptory in error as in truth. How come else the [in]tractable zealots in different and opposite parties? For if the light, which every one thinks he has in his mind, which in this case is nothing but the strength of his own persuasion, be an evidence that it is from God, *contrary* opinions may have the same title to be inspirations; and God will be not only the Father of lights, but of opposite and *contradictory* lights, leading men contrary ways; and contradictory propositions will be Divine Truths, if an ungrounded strength of assurance be an evidence that any proposition is a Divine Revelation.

Firmness of persuasion no proof that any proposition is from God.—This cannot be otherwise whilst *firmness* of persuasion is made the *cause* of believing, and *confidence* of being in the right is made an *argument* of Truth. St. Paul himself *believed* he did well, and that he had a call to it, when he persecuted the Christians, whom he *confidently thought* in the wrong; but yet it was he, and not they who were mistaken. Good men are men still liable to mistakes; and sometimes warmly engaged in errors, which they take for Divine Truths shining in their minds with the clearest light.

Light in the mind, what.—Light,—*true* light,—in the mind, is or can be nothing else but—The *evidence* of the Truth of any proposition: and if it be not a self-evident proposition, all the light it has, or can have, is from the clearness and validity of those *proofs* upon which it is received. To talk of any other light in the Understanding is to put *ourselves* in the dark, or in the power of the prince of darkness, and, by our own consent, to ive ourselves up to delusion, to believe a lie.

evelation must be judged of by reason.—He, therefore, that will not give himself up to all the extravagancies of delusion and error must bring this guide of his light within to the trial. GOD, when he makes the prophet, does not unmake the man: He leaves all his faculties in their natural state, to enable him to judge of his inspirations, whether they be of divine original or not. When He illuminates the mind with supernatural light, he does not extinguish that which is natural. If He would have us assent to the truth of any proposition, He either evidences that truth by the usual methods of natural Reason, or else makes it known to be a truth, which He would have us assent to, by His *authority*, and convinces us *that it is* from Him by some *marks* which Reason cannot be mistaken in. Reason must be our last judge and guide in everything. I do not mean that we must consult Reason, and examine whether a proposition revealed from GOD *can be made out* by natural principles; and if it cannot, that then we may reject it: but *consult* it we must; and *by it examine* whether [the proposition] *be* a revelation from GOD or not: and if Reason *finds it to be* revealed from GOD, Reason *then* declares for it, as much as for any other truth, and makes it one of her dictates. Every conceit that thoroughly warms our fancies must pass for an inspiration, if there be nothing but the strength of our persuasions whereby to judge of our persuasions. If Reason must not examine their truth by something extrinsical to the persuasions themselves, inspirations and delusions, truth and falsehood, will have the same measure, and will not be [capable of being] distinguished.

Belief no proof of revelation.—If this 'internal light,' or any proposition which under that title we take for inspired, be conformable to the principles of Reason, or to the Word of GOD, *which is* ATTESTED REVELATION, Reason warrants it; and we may safely receive it for true, and be guided by it in our belief and actions: if it receive no testimony or evidence from either of these rules, we cannot take it for a Revelation, or *so much as for true*, till we have some *other mark* that it is a Revelation besides our *believing* that it is so. Thus we see, the holy men of old, who *had* Revelations from GOD, had *something else* besides that internal light of *assurance* in their own minds *to testify* to them that it was from GOD. They were not left to their own *persuasions* alone that those persuasions were from GOD, but had *outward signs* to convince them of the Author of those Revelations. And when they were to convince others, they had *a power given them* to justify the truth of their commission from heaven, and by *visible signs* to assert the Divine authority of a message they were sent with. Moses saw the bush burn without being consumed, and heard a voice out of it. This was something *besides finding an impulse* upon his mind to go to Pharaoh that he might bring his brethren out of Egypt; and yet he thought not *this* enough to authorize him to go with that message, till GOD, by another miracle—of his rod turned into a serpent—had assured him of *a power to testify* his mission by the same miracle repeated before them whom he was sent to. Gideon was sent by an angel to deliver Israel from the Midianites; and yet he desired '*a sign*' to *convince* him that this commission *was* from GOD. These, and several the like instances to be found among the Prophets of old, are enough to show that *they* thought not an inward seeing or persuasion of their own minds, without any other proof, a sufficient evidence that it was from God, though the Scripture does not everywhere mention their demanding or having such proofs.

In what I have said I am far from denying that God can, or does sometimes, enlighten men's minds in the apprehending of *certain* truths, or excite them to good actions by the *immediate* influence and assistance of the Holy Spirit, without any extraordinary 'signs' accompanying it. But in such cases, too, we have Reason and Scripture—*unerring rules*—to know whether it be from God or not. Where the *truth* embraced is consonant to the Revelation in the Written Word of God, or the action [is] conformable to the dictates of Right Reason or Holy Writ, we may be *assured* that we run no risk in entertaining it as such; because, though perhaps it be not an *immediate* Revelation from God—extraordinarily operating on our minds—yet we are *sure* it is *warranted by* that Revelation which He has given us of Truth. But it is not the strength of our private persuasion within ourselves that can *warrant it* to be a 'light' or 'motion' from Heaven; nothing can do that but [either] the Written Word of God *without* us, or that *standard* of Reason which is common to us with all men. Where Reason or Scripture is *express* for any opinion or action, we may receive it as of Divine authority; but it is not the strength of our own persuasions which can by itself give it that stamp. The bent of our own minds may *favour* it as much as we please, but will by no means prove it to be an offspring of Heaven, and of Divine original.

CHAPTER XX.

OF WRONG ASSENT, OR ERROR.

Causes of error.—Knowledge being to be had only of [evident] and certain Truth, Error is not a fault of our Knowledge, but—a mistake of our Judgment giving assent to that which is not true.

But if Assent be grounded on *likelihood*—if the proper object and motive of our Assent be *probability*, and that probability consist in what is laid down in the foregoing chapters—it will be demanded, how men come to give their assent *contrary to* probability? For there is nothing more common than contrariety of opinions; nothing more obvious than that one man wholly disbelieves what another only doubts of, and [what] a third stedfastly believes and firmly adheres to. The reasons whereof, though they may be very various, yet, I suppose, may be all reduced to these four: (1) Want of proofs; (2) Want of ability to use them; (3) Want of will to use them; (4) Wrong measures of probability.

Want of proofs.—First, By 'Want of proofs,' I do not mean only the want of those proofs which are nowhere extant, and so are nowhere to be had; but the want even of those proofs which are in being, or might be procured. And thus men want proofs who have not the convenience or opportunity to make experiments and observations themselves, tending to the proof of any proposition; nor likewise the convenience to inquire into and collect the testimonies of others: and in this state are the greatest part of mankind who are given up to labour, and enslaved to the necessity of their [humble] condition, whose lives are worn out only in the provisions for living.

Objection.—"*What shall become of those who want them?*" *answered.*—What shall we say, then? Are the greatest part of mankind, by the necessity of their condition, subjected to unavoidable ignorance in those things which are of greatest importance to them? [Answer]—No man is *so wholly taken up* with the attendance on the means of living as to have *no* spare time at all to think of his soul, and inform himself in matters of Religion. Were men as intent upon this as they are on things of lower concernment, there are none so enslaved to the necessities of life who might not find many vacancies that might be husbanded to this advantage of their Knowledge.

People hindered from inquiry.—There are others [who] are cooped in close by the laws of their countries, and the strict guards of those whose interest it is to keep them ignorant, lest, knowing more, they should believe the less in *them*. These, however they may seem high and great, are confined to narrowness of thought, and enslaved in that which should be the *freest* part of man,—their Understandings. This is generally the case of all those who live in places where care is taken to propagate [alleged] truth without *knowledge*, where men are forced, at a venture, to be of the religion of the country, and must therefore swallow down opinions, as silly people do empirics' pills, without *knowing* what they are made of, or how they will work, and have nothing to do but *believe* that they will do the cure; but in this are much more miserable than *they*—in that they are not at liberty *to refuse* swallowing what perhaps they had rather let alone, or *to choose* the physician to whose conduct they would trust themselves.

Want of skill to use [proofs].—Secondly, Those who want *skill* to use those evidences they have of probabilities—who cannot carry a train of consequences in their heads, nor weigh exactly the preponderancy of contrary proofs and testimonies, making every circumstance its due allowance—may be easily misled to assent to positions that are not probable. These cannot always discern that side on which the strongest proofs lie—cannot constantly follow that which in itself is the more probable opinion. [It] is evident, that there is a difference of degrees in men's understandings, apprehensions, and reasonings, to so great a latitude, that one may, without doing injury to mankind, affirm that there is a greater distance between some men and others in this respect, than between some men and some beasts. But how this comes about is a speculation, though of great consequence, yet not necessary to our present purpose.

Want of will to use them.—Thirdly, There are [others] that *want* proofs, not because they are out of their reach, but because they will not *use* them; who, though they have riches and leisure enough, and want neither parts nor other helps, are yet never the better for them. Their hot pursuit of pleasure, or constant drudgery in business, engages some men's thoughts elsewhere; laziness and oscitancy in general, or a particular aversion for books, study, and meditation, keep others from any serious thoughts at all; and some, out of fear that an impartial inquiry would not favour those opinions which best suit their prejudices, lives, and designs, content themselves, without examination, to take upon trust what they find convenient and in fashion. I will not here mention how unreasonable this is for men that ever think of *a future state*, and *their concernment in it, which no rational man can avoid to do sometimes;* nor shall I notice what a shame and confusion it is, to the greatest contemners of knowledge, to be found ignorant in things [which] they are concerned to know. But this, at least, is worth the consideration of those who call themselves 'gentlemen,' that, however they may think credit, respect, power, and authority, [to be] the concomitants of their birth and fortune, yet they will find all these still carried away from them by men of lower condition, who surpass them in—KNOWLEDGE. They who are blind will always be led by those that see, or [will] else fall into the ditch: and *he* is certainly the most subjected—the most enslaved—who is so in his Understanding. In the foregoing instances, some of the causes have been shown of wrong assent, and how it comes to pass that probable doctrines are not always received with an assent proportionable to the reasons which are to be had for their probability: but hitherto we have considered only such probabilities whose proofs *do exist*, but do not *appear* to him who embraces the error.

Wrong measures of probability.—Fourthly, There remains yet the last sort, who, even where the real probabilities appear, and are plainly laid before them, do not admit of the conviction, nor yield unto manifest reasons, but do either ἐπεχ[οῦσι]—'suspend' their assent—or give it to the less probable opinion. And to this danger are those exposed who have taken up wrong measures of probability; which are, (1) Propositions that are not in themselves certain and evident, but doubtful and false, taken up for principles. (2) Received hypotheses. (3) Predominant passions or inclinations. (4) Authority.

Doubtful propositions taken for principles.—The *First*, and firmest, ground of probability, is — *The conformity that anything has to our own Knowledge*, especially that part of our Knowledge which we have embraced, and continue to look on, as *principles*. These have so great an influence upon our opinions, that it is usually by them we judge of Truth, and measure Probability, to that degree that what is inconsistent with our principles is so far from passing for probable with us that it will not be allowed *possible*. This I readily grant—that *one truth cannot contradict another;* but, withal, every one ought very carefully to beware what he admits for 'a principle,'—to *examine it* strictly, and see whether he *certainly knows* it to be true of itself by its own evidence, or whether he does only with assurance *believe it* to be so upon the authority of others: for he has a strong bias put into his Understanding, which will unavoidably misguide his assent, who has imbibed wrong principles, and has blindly given himself up to the authority of any opinion in itself not evidently true.

What way will you take to convince a man of any improbable opinion [that] he holds, who, with some philosophers, has laid down this as a foundation of Reasoning —that he must believe his Reason (for so men improperly call arguments drawn from their principles *against* his

Senses? Let an enthusiast be [impressed with the] principle that he or his teacher is 'inspired,' and actuated by an immediate communication of the Divine Spirit, and you in vain bring the evidence of clear reasons against his doctrine.

Received hypotheses.—Secondly, Next to these are men whose understandings are cast into a mould, and fashioned just to the size of a *received hypothesis.* The difference between these and the former is—that [while these] will admit of matter of fact, and agree with dissenters in that, [they] differ only in *assigning of reasons* and explaining the *manner* of operation. These are not at [such] open defiance with their *senses* as the former: they can endure to hearken to their information a little more patiently; but will by no means admit of their reports in the *explanation of things,* nor be prevailed on by probabilities which would convince them that things are not brought about just after the same manner that they have *decreed within themselves* that they are. To this —of *wrong hypothesis*—may be reduced the errors that may be occasioned by a true hypothesis—or right principles *not rightly understood.* There is nothing more familiar than this. The instances of men contending for different opinions, which they all derive from the infallible truth of the Scripture, are an undeniable proof of it. All that call themselves Christians *allow* the text that says, 'Μετανοεῖτε,' to carry in it the *obligation* to a very weighty duty. But yet, very erroneous will one [or other] of their *practices* be, who take this rule, with one translation, to be—"Repent;" or with the other—"Do penance."

Predominant passions.—*Thirdly*, Probabilities which cross men's appetites and prevailing passions run the same fate. Let ever so much probability hang on one side of a covetous man's reasoning, and money on the other, it is easy to foresee which will outweigh. Earthly minds, like mud walls, resist the strongest batteries; and though, perhaps, sometimes the force of a clear argument may make some impression, yet they nevertheless stand firm, keep out the enemy, Truth, that would captivate or disturb them. Not but that it is *the nature* of the Understanding *constantly to close with the more probable side:* but yet a man has a power to *suspend* and *restrain* its inquiries, and not permit a full and satisfactory examination, as far as the matter in question is capable, and will bear it, to be made. Until that be done, there will be always these two ways left of evading the most apparent probabilities:

The means of evading Probabilities.—*First*, that the Arguments being (as for the most part they are) brought in Words, there may be a *fallacy latent* in them; and the consequences being, perhaps, many in train, they may be some of them incoherent. There are very few discourses so short, clear, and consistent, to which most men may not, with satisfaction enough to themselves, raise this doubt, and from whose conviction they may not, without reproach of disingenuity or unreasonableness, set themselves free with the old reply, *Non persuadebis, etiamsi persuaseris*,—'Though I cannot answer, I will not yield.'

Secondly, manifest probabilities may be evaded, and the assent withheld, upon the suggestion, that—'I know not yet all that may be said on the contrary side: and therefore, though I be beaten, it is not necessary I should *yield*, not knowing what forces there are in reserve behind.' This is a refuge against conviction, so open and so wide, that it is hard to determine *when* a man is quite out of the verge of it.

What probabilities determine the assent.—But yet there is *some* end of it; and a man, having carefully inquired into all the grounds of probability and unlikeliness—done his utmost to inform himself in all particulars fairly, and cast up the sum total on both sides—may in most cases come to acknowledge, upon the whole matter, on *which* side the probability rests; wherein *some* proofs in matters of reason—being suppositions upon universal experience—are so cogent and clear, and *some* testimonies in matter of fact so universal, that he cannot refuse his assent. So that, I think, we may conclude that, in propositions where, though the proofs in view are of most moment, yet there are sufficient grounds to suspect that there is either fallacy in Words, or [that there are] certain proofs as considerable to be produced on the contrary side, there* assent, suspense, or dissent are often voluntary actions: but where the proofs are such as make it *highly probable*, and there is *not* sufficient ground to suspect that there is either [1.] fallacy of Words (which sober and serious consideration may discover), or [2.] equally valid proofs yet undiscovered, latent on the other side (which also the nature of the thing may, in some cases, make plain to a considerate man), there, I think, a man who has weighed them can scarce refuse his assent to the side on which the greater probability appears. Whether it be probable that a promiscuous jumble of printing letters should often fall into a method and order which should stamp on paper a coherent discourse; or that a blind, fortuitous, concourse of atoms, not guided by an understanding agent, should frequently constitute the bodies of any species of animals —in these and the like cases, I think nobody that considers them can be one jot at a stand which side to take, nor at all waver in his assent. Lastly, when there can be no supposition (the thing [being] in its own nature indifferent, and wholly depending upon the testimony of witnesses) that [3.] there is as fair testimony against, as for, the matter of fact attested (which by inquiry is to be learned, v. g.—whether there was, seventeen hundred years ago, such a man at Rome as Julius Cæsar)—in all such cases, I say, I think it is not in any rational man's power to refuse his assent; but that it necessarily follows and closes with such probabilities. In other less clear cases, I think it is in a man's power to suspend his assent, and perhaps content himself with the proofs he has, if they favour the opinion that suits with his inclination or interest, and so stop from farther search. But that a man should afford his *assent* to that side on which *the less* probability appears to him, seems to me utterly impracticable, and as impossible as it is to believe the same thing probable and improbable at the same time.

---

* The 8vo. edition before alluded to has 'their,' which seems unintelligible.—ED.

Where it is in our power to suspend it.—As Knowledge is no more arbitrary than Perception, so, I think, Assent is no more in our power than Knowledge. When the agreement of any two ideas appears to our mind, whether *immediately*, or by the assistance of Reason, we can no more *refuse* to perceive—no more *avoid* knowing it—than we can avoid seeing those objects which we turn our eyes to and look on in daylight; and what, upon full examination, we find the most probable, we *cannot* deny our Assent to. But though we cannot hinder our Knowledge, where the agreement is once perceived, nor our Assent, where the probability manifestly appears upon due consideration of all the measures of it, yet we can hinder both Knowledge and Assent, by *stopping our inquiry*, and *not employing our faculties* in the search of any truth. If it were not so, Ignorance, Error, or Infidelity could not in any case be *a fault*. Thus, in some cases, we can *prevent* or *suspend* our Assent: but can a man, versed in modern or ancient history, doubt whether there be such a place as Rome, or whether there was such a man as Julius Cæsar? Indeed, there are millions of truths that a man *is not*, or may *not think* himself, concerned to know; as, whether our King Richard III. was crook-backed or not: but where the mind judges that the proposition has *concernment* in it; where the assent, or not assenting, is thought to draw consequences of moment after it, and Good or Evil to depend on choosing or refusing the *right* side, and the mind sets itself seriously to inquire and examine the probability, there, I think, it is not in our choice to take which side *we please*, if manifest odds appear on either.

If this be so, the *foundation* of Error will lie in wrong measures of Probability; as the foundation of Vice in wrong measures of Good.

Authority.—The *Fourth*, and last, wrong measure of probability [that] I shall take notice of, and which keeps in ignorance or error more people than all the others together, is that which I have mentioned in the foregoing chapter: I mean—*The giving up* our Assent to the common received opinions, either of our friends or party, neighbourhood or country. How many men have no other ground for their tenets than the *supposed* honesty, or learning, or number of those of the same profession? as if honest or bookish men could not err; or truth were to be established by the vote of the multitude! A man may more justifiably throw up cross and pile for his opinions, than take them up by such measures. This at least is certain—there is not an opinion so absurd which a man may not receive upon this ground. *There is no error to be named which has not had its professors;* and a man shall never want crooked paths to walk in, if he thinks that he is in the right way, wherever he has *the footsteps of others* to follow.

Men not in so many errors as is imagined.—But notwithstanding the great noise [that] is made in the world about 'errors' and 'opinions,' I must do mankind that right to say, [that] there are not so many men in errors and wrong opinions, as is commonly supposed. *Not* that I think *they embrace the Truth;* but, indeed, because concerning those doctrines [which] they keep such a stir about, they have *no thought*, no opinion at all. For if any one should a little catechize the greatest part of the partisans of most of the sects in the world, he would not find, concerning those matters [which] they are so zealous for, that they have any opinions *of their own:* much less would he have reason to think that they took them upon the examination of *arguments*, and appearance of *probability*. They are *resolved* to stick to a party that education or interest has engaged them in; and there, like the common soldiers of an army, show their courage and warmth as their leaders direct, without ever examining, or so much as knowing, the cause they contend for; and though one cannot say there are fewer improbable or erroneous opinions in the world than there are, yet this is certain—there are fewer [persons] that *actually assent* to them and *mistake* them for Truths than is imagined.

◆

CHAPTER XXI.

OF THE DIVISION OF THE SCIENCES.

Three sorts.—All that can fall within the compass of Human Understanding being either, *First*, The nature of things as they are in themselves, their relations, and their manner of operation: or, *Secondly*, That which man himself ought to do as a rational and voluntary agent, for the attainment of any end, especially Happiness: or, *Thirdly*, The ways and means whereby the Knowledge of both the one and the other of these is attained and communicated: I think SCIENCE may be divided properly into these three sorts:—

Physica.—*First*, The Knowledge of things as they are in their own proper beings—their constitutions, properties, and operations; whereby I mean not only

Matter and Body, but Spirits also; which have their proper natures, constitutions, and operations, as well as Bodies. This, in *a little more enlarged sense* of the word, I call Φυσική, or *Natural* Philosophy. The end of this is—bare *speculative* Truth; and whatsoever can afford the mind of man any such, falls under this branch, whether it be God Himself, Angels, Spirits, Bodies—or any of their affections, as number, and figure, &c.

Practica.—Secondly, Πρακτική—The skill of right[ly] *applying* our own powers and actions for the attainment of things good and useful. The most considerable under this head is Ethics, which is—The [Science of] seeking out those rules and measures of human *actions* which lead to Happiness; and the means to practise them. The end of this is not bare *speculation*, and the Knowledge of Truth; but Right, and a *conduct* suitable to it.

Σημειωτική.—*Thirdly,* The third branch may be called Σημειωτική, or—The Doctrine of *Signs*; the most usual whereof being Words, it is aptly enough termed also Λογική—Logic; the business whereof is—to consider the nature of [the] *signs* [which] the Mind makes use of for [1.] the *understanding* of things, or [2.] *conveying* its Knowledge to others. For, since the things [which] the mind contemplates are none of them, [*except*] *itself*, present to the Understanding, it is necessary that something else, as a 'sign' or *representation* of the thing it considers, should be present to it: and these are—Ideas. And because the *scene* of Ideas that makes one man's thoughts cannot be *laid open* to the *immediate* view of another, nor laid up anywhere but in the Memory—(a no very sure repository),—therefore, to communicate our thoughts to one another, as well as record them for our own use, 'signs' of our Ideas are also necessary. Those which men have found most convenient, and therefore generally make use of, are—*articulate sounds.* The consideration, then, of Ideas and Words as the great *instruments* of Knowledge, makes no despicable part of their contemplation who would take a view of Human Knowledge in the *whole extent* of it. And perhaps if they were distinctly weighed and duly considered, they would afford us another sort of logic[al] and critic[al analysis] than what we have been hitherto acquainted with.

This is the first division of the objects of knowledge.—This seems to me the *first* and *most general* as well as [*most*] *natural* Division of the *objects* of our Understanding. For a man can employ his thoughts about nothing but either [1.] the contemplation of things themselves for the discovery of Truth; or about [2.] the things in his own power, which are his own Actions, for the attainment of his own *ends;* or [3.] the *signs* [which] the mind makes use of, both in the one and the other, and the right ordering of them for its clearer information. All which three, viz.—*things* as they are in themselves, *actions* as they depend on us in order to happiness, and the right use of *signs* in order to Knowledge, being *toto cœlo* different, they seemed to me to be the Three Great Provinces of the Intellectual World, wholly separate and distinct one from another.

END OF LOCKE'S ESSAY.